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1997 REPORT ON THE WORLD SOCIAL SITUATION*

* The present document is a mimeographed version of the 1997 report on the world social situation and is being issued in two parts. Part I contains the prefatory material and chapters I to V of the report; part II contains chapters VI to VIII. The complete report will be issued in final form as a United Nations sales publication under the symbol ST/ESA/252.

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PREFACE

The 1997 edition of the Report on the World Social Situation surveys the current socio-economic situation, with a specific focus on core issues of social development. The report was prepared at the request of the General Assembly, the Economic and Social Council and the Commission on Social Development.

The report was prepared by the Microeconomic and Social Analysis Division of the Department for Economic and Social Information and Policy Analysis, with the collaboration of the Macroeconomic Division, the Population Division and the Statistics Division.

The report has also benefited from consultations with the World Bank, the International Labour Organization and the United Nations Development Programme. The report draws upon data and analysis from the United Nations, the World Bank, the International Labour Organization, the Organisation for Economic Cooperation and Development, national governments as well as academic institutions.

The Report on the World Social Situation was prepared by a team led by Binta Dieye and Albrecht Horn, comprising David Gold, Larissa Kapitsa and Douglas Walker. The work was carried out under the overall direction of Under-Secretary-General Jean-Claude Milleron and the Adviser to the Under-Secretary-General Arjun Sengupta. Major contributions to the chapters were also received from Andras Blaho, Henk-Jan Brinkman, Fred Campano, Nancy Yu-Ping Chen, Ana Cortez, Simon Cunningham, Richard Gordon, Robert Jones, Andrzej Krassowski, Ann Orr, Larry Willmore and Sergei Zelenev. Some additional inputs were provided by Nicholas Dedring, Alessandra de Rosa, Michele Fedoroff, Joseph Grinblat, Nicholas Rolloff, Christine Shaw, Joann Vanek and Hania Zlotnik. Production assistance was provided by Beatrice Frankard-Little. The desktop publication of the advance copy was provided by Valerian Monteiro. Technical assistance was provided by Melanie de Leon, Ann D'Lima, Sam Jan, Ramachandra Kurup and Ivy Lee. Valuable secretarial assistance was provided by Tessie Machan-Aquino, Florence Anyansi, Rosario Arago, Juliet Capili, Marcela Guimaraes and Atsede Mengesha. External editing was done by Ms. Ilyse Zable and Ms. Barbara Karny from American Writing Corporation. The cover design was produced by Wylton James.

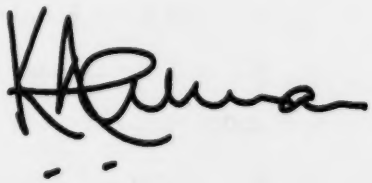
FOREWORD

The 1997 Report on the World Social Situation is devoted to the central issues considered at the World Summit for Social Development, held in Copenhagen, Denmark on 6-12 March 1995. The Summit was an integral part of the continuum of world conferences convened by the United Nations in the 1990s to address human rights and key development issues and represented a turning point in our collective consciousness regarding social issues. Inspired by a renewed spirit of solidarity, Member States pledged to fight the threats from common enemies: unemployment, exclusion, rural decline, urban decay, deterioration of the environment, and new and re-emerging diseases.

Following a presentation of current economic patterns at the global and regional levels and an overview of sectoral social issues, the report examines selected aspects of the three main themes of the Summit: eradication of poverty, expansion of productive employment and social integration. Policy issues and options are analyzed from both the national and international perspective. The report takes heed of the Summit's strong advocacy of a systemic, holistic approach and puts forward a broad view of social policy which recognizes the interplay of social, economic and cultural factors.

Development programmes must, to be viable, have a strong focus on people. This focus must be coupled with empowerment so that individuals and social groups can choose their own destiny in full knowledge of the consequences of their acts for present and future generations. The capacity to generate, disseminate and utilize knowledge and information is fundamental in this regard, as has been shown in societies which have succeeded in maintaining their cohesion, respecting human rights, sustaining democratic structures and promoting participatory and equitable development.

The report provides an opportunity to ponder and reflect on these crucial issues in the closing years of the twentieth century. The intent is to generate further ideas as well as actions that will contribute to the realization of the Programme of Action of the Summit - our blueprint for social development into the next century.



(Signed) Kofi A. ANNAN
Secretary-General

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INTRODUCTION

1. As the twentieth century draws to its close, the world social situation challenges societies with its diversity and complexity. Progress achieved on many fronts coexists with setbacks and even reversals of gains made earlier. Opportunities for social advance seem boundless but many expectations remain unmet. Despite enormous uncertainty and ambivalence, however, the present period represents a time of remarkable social change, and of intense striving and hope. This hope for a better future amid a widespread sense of urgency, reflecting the current challenges confronting individual nations and the international community, permeated the landmark World Summit for Social Development, held in Copenhagen from 6 to 12 March 1995.[1] The 1997 report on the World Social Situation appears nearly two years after the Copenhagen Summit. The priority subjects discussed by the Summit constitute the core of this report, and are used as the starting point and touchstone of the present analysis.

A. The changing context of social development and main themes of the report

2. The Summit, including its preparatory process, contributed substantially to an increased level of international awareness of social issues. The report has gained from that discussion, which broadened the social agenda and led to a comprehensive evaluation of what has been achieved, what is still required and which new priorities must be set. The international community recognized that no country, however rich, is immune from social problems. And in those countries where social issues are most pressing, not only the welfare but often the survival of a large part of the population is at stake. The 1997 report documents this situation by describing different facets of social development in health, nutrition and education. Increased migration flows as well as diverse trends in fertility and mortality are also discussed. The report illustrates the fact that many contemporary social problems are global in nature, their solution requiring concerted and well-coordinated efforts on the part of governments, civil society and the international community.

3. The Summit played a catalytic role in renewing the quest to better integrate economic and social facets into the development process. The Copenhagen Declaration on Social Development and Programme of Action of the World Summit for Social Development[2] reflected both national and international developmental efforts, recognizing that while social development remains a national responsibility, the support, collective commitment and efforts of the international community are essential for achieving the goals set out in Copenhagen. A search for a consensus on an appropriate balance between national and international action became an important policy goal forged during the Summit.

4. In analysing the multi-dimensional nature of social reality, the Summit acknowledged the progress achieved in many areas of social and economic development. But it also underscored that there are disadvantaged and vulnerable groups within many societies whose interests need to be addressed to

make a people-centred framework for social development the norm. The political and social costs of neglect, passivity or inaction are very high. The three-pronged approach adopted by the Summit committed the States Members of the United Nations to eradicating world poverty, promoting full employment as a basic policy priority and achieving social integration based on respect for human rights, as well as on non-discrimination and maximal participation of all people in decisions affecting their well-being. By admitting both the difficulties and challenges facing the international community, at national and international levels in the social field, the Member States took a major step forward in tackling socio-economic development, while charting new priorities for social action.

5. Social development cannot be isolated from ongoing political, economic and cultural changes. Diversity and democratization, which have expanded since the end of the 1980s, have powerfully affected governance and civil society. The end of the Cold War and the disappearance of the East-West ideological divide have given rise to numerous economic and social expectations that have yet to materialize. Though economic restructuring in the transition economies has been set in motion, more sizeable economic gains have not matched advances in democracy and freedom. At the same time, the constraints and structures previously held in place by the ideological and military confrontation of the Cold War have fallen by the wayside, making the world much less predictable. As a result, some ethnic, national and religious animosities, which remained dormant for decades, have surfaced in different regions, particularly in nation-States that have disintegrated. In their most extreme manifestations, the pent-up frustrations and animosities have led to bloodshed and war.

6. Both new and old threats plague the international community. Major environmental problems put human well-being at risk. Terrorism continues as a major, insidious threat. Corruption, criminality, cross-border crime and the drug trade, supported by organized crime, present an ever-increasing danger. Escalation of violent conflicts, genocide and abuses of human rights affecting large groups of the population have become factors of renewed concern to the international community. Global issues have become more important to multilateral bodies, replacing old issues related to the ideological East-West confrontation. The post-Cold War era permitted, and even compelled, the United Nations to shift its focus to those issues.

7. One of the major factors affecting social policies is the globalization of the world economy. While not addressing this broad issue specifically, the report highlights some of its social facets. The premise of the report is that globalization widens the opportunities for economic growth, but the process of globalization has risks and costs, including social costs. Increased trade, investment and financial flows have made it more cumbersome for governments to achieve their policy objectives, sometimes narrowing the range of options available and increasing the cost of policy failures. In certain cases, globalization may have contributed to, or aggravated, existing social ills, such as unemployment, or led to increasing income inequality. It affects all countries, though certain nations, some developing countries in particular, have not yet benefited from the opportunities it provides, including poverty reduction. East Asia is a region that has gained the most to date from globalization. Across Latin America the situation is somewhat ambivalent,

though signs of tentative progress have been visible. Sub-Saharan Africa, however, has remained largely on the sidelines.

8. The benefits of globalization are spread unevenly within and among developing countries. Clear understanding of current globalization trends coupled with political will may help the international community to prevent the appearance of new divisions, including that of countries marginalized by the global marketplace. As economies and societies become increasingly interdependent due to the unceasing growth of international commerce, investment and finance, as well as growing communications and transport linkages, social problems become globally diffused. But transnational forces that propel global changes, in particular mobile investment and finance, are weakening the ability of national governments to influence economic and social outcomes, often putting fulfilment of even the national political commitments, not to mention the ability to influence global trends, beyond the reach of elected national representatives.

9. International cooperation based on a perceived convergence of views on major international issues has served as a powerful tool with which to confront emerging problems. Coordination of social policies at the international level may be as important for achieving positive outcomes as is local adaptation to the challenges of globalization. Autarky and isolation are not viable options, since integration into the world economy brings the potential for shared prosperity and opportunities. Societies that choose to stay on the sideline pay a huge price in terms of missed economic growth.

10. Another major theme that the report highlights is the social consequences of economic restructuring. The thrust of economic policy changes have become similar throughout the world. The economies in transition are, of course, a significant case in point, primarily because of the sheer extent of their systemic transformation agenda. In practice, the transition process has imposed a much heavier social toll than was anticipated at its outset, including increasing poverty and polarization. In developing countries, economic liberalization amid structural adjustment has sometimes increased the risks of instability and marginalization for some social groups, although a number of countries have seized the new opportunities emanating from technological advances, the increased mobility of production factors and a more open trading system. However, given the complex relationship between economic growth and the social fabric of society, it would be desirable to redefine the term "structural adjustment" to include not merely macroeconomic balances and productive structures, but also the distribution of resources and assets, access to employment and earned income, and the creation of social policies that contribute to human security and stimulate the growth of productive skills.[3] This task, at the same time, would make it imperative for policy makers to formulate credible policy responses, based on a broad knowledge of national settings and available resources and well-attuned to the challenges of globalization.

B. Organization of the report and data used

11. The 1997 report on the World Social Situation consists of two parts. Part one provides an overview of sectoral social issues, emphasizing living conditions. It starts with a presentation of current economic patterns at the global and regional levels. As part of its appraisal of population trends, the report examines the size and growth of populations, both globally and regionally, along with the demographic components of fertility, mortality and international migration that determine these trends. The chapter on health covers two issues: the concern that life expectancy has fallen in sub-Saharan Africa and the transition economies, and an assessment of the largest risks to global health, including new and infectious diseases. The report also provides an assessment of world trends and patterns of hunger and malnutrition, and it elucidates policy issues in this field. Part one closes with a brief discussion of some salient issues in education, including those pertinent to formal education, adult illiteracy and the quality of education systems.

12. Part two of the report addresses the three core themes of the World Summit for Social Development in the order put forward by the Summit's Programme of Action: eradication of poverty, expansion of productive employment and social integration. This order reflects the priorities set by the Summit, as well as the wishes of the Commission for Social Development, expressed at its thirty-fourth session in 1995 and its special session in 1996. Each chapter discusses policy issues and options, domestic approaches and international instruments, where appropriate.

13. The chapter on poverty examines major trends in absolute poverty worldwide and its relationship to world economic growth. The report makes a tentative assessment of the progress towards eradicating global poverty, along with an overview of key elements in a comprehensive strategy for poverty reduction.

14. The chapter on employment and unemployment focuses on the magnitude of the problems in developing countries, as well as in transition and developed market economies. It addresses issues of economic restructuring and employment, the place of vulnerable groups in labour markets, inequality and the structure of labour markets. The concluding chapter examines discrimination, a subject closely linked to social exclusion, which in many ways is related to social integration. It covers the anatomy and patterns of gender and minority discrimination.

15. The report is based on data collected by national statistical offices and submitted to the United Nations; statistics provided by the regional commissions of the United Nations, specialized agencies and other regional and international bodies; and databases managed by the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat. The chapter on poverty alleviation relies to a large extent on data provided by the World Bank. Whenever possible, the most up-to-date national sources have been used, as long as data quality and comparability with other national and international statistical collections were adequate. The report also relies on national studies that highlight social policy issues. In addition to a wide range of academic literature, the public debate under way in many countries is also used.

Notes

[1] For the report of the Summit, see Report of the World Summit for Social Development, Copenhagen, 6-12 March 1995 (United Nations publication, Sales No. 96.IV.8).

[2] Ibid., chapter I, resolution 1.

[3] Calls for such a redefinition were made specifically at the international seminar on Economic Restructuring and Social Policy organized in New York in 1995. See United Nations Research Institute for Social Development. Report of the International Seminar on Economic Restructuring and Social Policy (New York, United Nations, 1995).

Part One. SOCIAL CONDITIONS

1. In the 1990s we have witnessed an increasing awareness of the intimate linkages between economic and social development. As the Copenhagen Declaration on Social Development put it:

> We are deeply convinced that economic development, social development and environmental protection are interdependent and mutually reinforcing components of sustainable development, which is the framework for our efforts to achieve a higher quality of life for all people.[1]

2. Sustained, broad-based economic growth is clearly instrumental for achieving equitable social development and universal well-being. Sound economic policies promoting economic growth, combined with equitable redistributive mechanisms, can ensure a more balanced distribution of income in society. Economic policies should provide a strong financial basis for addressing social issues, such as the alleviation of poverty, social integration, improved health and education, and the provision of productive employment.

3. Social policies in health, education and employment deserve major consideration in establishing priorities for national budgets, particularly in view of growing pressures from other social needs. In many countries government expenditures on social services have been subject to fiscal constraints, imposed by shrinking budgets and shifts in public goals.

Notes

[1] Report of the World Summit for Social Development, Copenhagen, 6-12 March 1995 (United Nations publication, Sales No. 96.IV.8), chap. I, resolution 1, para. 6.

Chapter I

ECONOMIC TRENDS

1. The world economy has grown moderately since 1994, at an average annual rate of 2.5 per cent in 1994-1996. The current growth rate is still below the average rate of the 1980s, because of the weakness of the economic recovery in developed economies (see table 1.1). Nevertheless, it represents a significant improvement over the poor economic growth in 1990-1993. Those years were marked by economic stagnation in developed economies and precipitous economic decline in transition economies. There was severe economic and social deterioration in many developing economies, though some maintained a steady rate of economic growth.

A. Regional economic performance

2. The current pattern of economic strengthening reflects a broad-based expansion among countries, most notably among transition and developing economies. The effects of earlier stabilization measures and ongoing efforts in structural adjustment in many of these countries reduced barriers to trade and improved the competitiveness of their exports. As a result, they were better able to expand their exports when international demand strengthened after 1993. Also, strong financial inflows since the early 1990s strongly supplemented domestic resources.

3. Against the backdrop of protracted economic decline in the 1980s, resulting in high unemployment and increased poverty in many developing countries, this recent improvement in economic performance must be interpreted with caution. Of the transition economies, only Poland has regained even the level of income that it had at the beginning of the transition. Many developing countries remain severely indebted, and current per capita income levels remain below those of 1980 in much of Africa, Latin America and West Asia. Although it is possible that the stronger economic growth seen in the past three years represents a turning point for the world economy, recent improvements will be sustained only with appropriate national policies and international developments.

1. Developed economies

4. The current economic recovery in the developed economies has been characterized by still modest economic growth, virtual stagnation of real wages and high levels of unemployment. At the same time, inflation has been reduced significantly and budget deficits are declining in a number of countries. Structural problems persist, especially in labour markets and in social security systems. Currently, only the United Kingdom and the United States have a lower level of unemployment than they averaged in the 1980s. The unemployment rate in the European Union (EU) hovers around the peak 1994 level of 11.2 per cent. Although economic growth is expected to strengthen in the near term, the extent of the recovery is constrained by a tight macroeconomic policy stance, which is

Table 1.1 GROWTH OF WORLD OUTPUT, 1981-1996

(Annual percentage change)

Area, country, or region	*1981-1990*	*1991*	*1992*	*1993*	*1994*	*1995*[a]	*1996*[b]
World[c]	2.9	0.3	1.1	0.9	2.4	2.4	2 ½
Developed economies	2.9	0.7	1.6	0.7	2.7	2.0	2
Economies in transition[d]	2.0	-8.6	-12.0	-6.9	-8.9	-1.8	2
Developing economies of which	3.1	3.5	4.9	5.0	5.5	5.2	5 ½
Latin American and the Caribbean	1.2	2.9	2.2	3.0	4.6	0.9	2 ½
Africa	2.0	1.3	0.9	0.4	2.5	2.7	4
West Asia	-1.3	-0.2	5.7	2.6	0.6	3.1	3
South & East Asia of which	6.0	5.4	5.2	5.5	6.7	7.1	6 ¾
South Asia[e]	5.3	2.7	3.9	3.9	5.2	5.9	6
China	9.0	8.0	13.2	13.4	11.8	10.2	9
Memorandum item:							
Number of countries with rising per capita output[f]	74	69	73	62	93	103	109

Source : UN/DESIPA.

a Preliminary estimate.
b Forecast, based in part on Project LINK.
c Calculated as a weighted average of individual country growth rates of gross domestic product (GDP), where weights are based on GDP 1988 prices and exchange rates. An alternative weighting system for aggregation uses country weights derived from GDP in "international dollars", as converted from local currency using purchasing power parties as exchange rates. Based on this system the average annual GDP growth rate for the world is 3.2 per cent for 1981-1990 and 3 per cent for 1995 (see World Economic and Social Survey 1996, pp. 300-301 and table A.1).
d Based on reported GDP, which seriously underestimates activity in several countries.
e Bangladesh, India, Nepal, Pakistan and Sri Lanka.
f The number of countries in the sample is 1981-1990 and 1991:122; 1992:136; 1993-1996:137.

intended to lay the foundation for stronger growth in the longer term. In many countries, Governments are finding it difficult to meet their previous commitments to provide social benefits, particularly because of demographic factors, and are consequently reviewing and revising their social programmes.

2. Transition economies

5. The change from centrally planned to market economies, which began in many of the transition economies in 1989, has led to sharp declines in output. Positive growth resumed in Poland in 1992. Subsequently, economic growth was positive in an increasing number of Central and Eastern European transition economies (CEETEs) and the Baltic States. Despite recent improvements, output in all but one CEETE has remained below levels of the late 1980s. Continued economic recovery in the CEETEs is expected, based on the strength of investment and exports. Many members of the Commonwealth of Independent States (CIS), which began their transition later, have not yet emerged from economic decline, although the reported rate of output decline has slowed, and growth in some CIS countries is now positive.

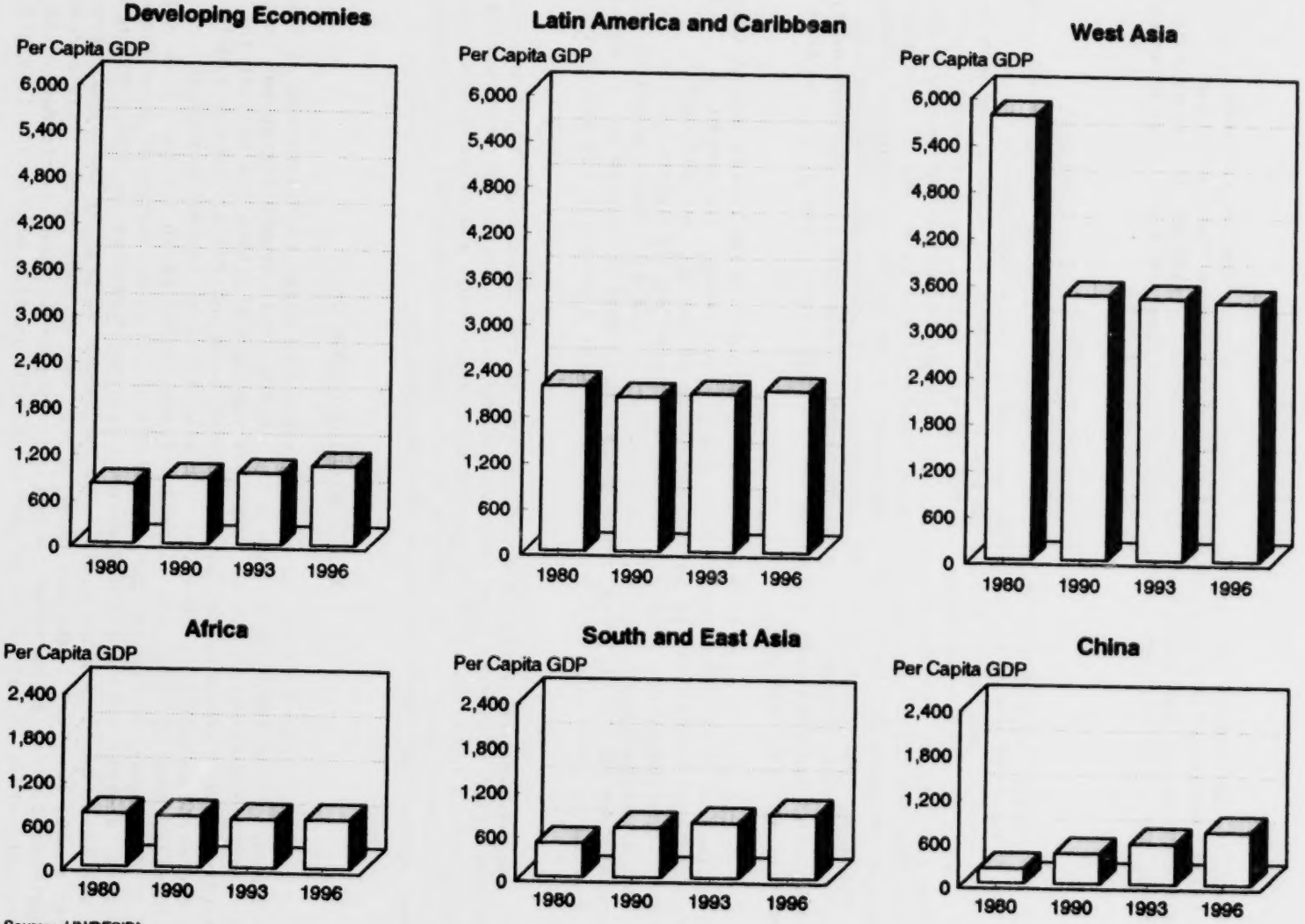
6. Domestic and foreign investment have responded to declining budget deficits and inflation, economic restructuring and rising demand. By deepening links with developed economies, in particular those of the EU, and undertaking economic restructuring, these economies have shown strong export growth. Revival of intraregional trade (discussed later) has also contributed to increased demand. High unemployment persists in most countries and is expected to decline in time only with continued structural adjustment and economic-growth.

7. During the past years of economic decline and often high inflation, many of the transition economies have had to face the daunting task of constructing social safety nets, for example providing unemployment and pension benefits and health care services to replace the mainly government-directed and enterprise-based system that prevailed under central planning.

3. Developing economies

8. Economic growth in the developing economies began to strengthen at the beginning of the 1990s (see table 1.1). Since 1993, growth has spread to an increasing number of countries, with per capita GDP rising not only in the rapidly growing economies of South and East Asia and China, and the middle-income economies of Latin America, but also to lower income developing economies, many of which are least developed countries in Africa. From a sample of 91 developing economies, per capita GDP in 75 is estimated to have increased in 1996, whereas per capita GDP rose in only 50 countries in 1993. Of those 75, 22 are least developed countries. The magnitude of per capita output growth has been small, however, remaining under 2 per cent in many cases. This modest improvement after an extended period of very poor economic performance has not been sufficient to lift average per capita GDP in 1996 above 1980 levels in Africa and Latin America (see figure 1.1).

Figure 1.1 Per Capita GDP of Developing Economies : 1980 - 1996
(1988 dollars)



Source: UN/DESIPA.
Note: GDP is calculated on an exchange rate basis.

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9. Domestic stabilization and structural adjustment policies, as well as the international economic environment, have been the prime determinants of growth in developing countries in the 1990s. The economic recovery generated by successful stabilization and economic reform programmes in major Latin American countries paused after the 1994-1995 Mexican financial crisis. The crisis revealed the vulnerability of the financial systems of several Latin American countries and forced new adjustment measures. The still-high levels of unemployment and poverty were aggravated by the economic reversal. But, the substantial reduction in inflation achieved in the early 1990s has largely been maintained, and economic growth in the region is clearly advancing beyond its 1995 level bolstered by substantial financial inflows, robust exports and stronger domestic demand.

10. Several African economies finally showed signs of emerging from the economic decline of the past 15 years, boasting economic improvement in 1995 and a further strengthening of growth in an increasing number of countries in 1996. Substantially higher demand, as well as higher international prices of non-oil commodities, have catalysed economic growth in commodity-exporting countries. Increased competitiveness in some countries resulting from progress in stabilization, structural adjustment and currency devaluation such as in the CFA franc zone, have also boosted exports. The end of drought and the mitigation of violent conflict in some countries have also contributed to growth.

11. The prospects for continued strengthening of growth in Africa are, however, uncertain. There are serious structural constraints to long-term growth in sub-Saharan Africa. The undiversified output structure, heavily weighted towards commodities, leaves the economies in that region highly vulnerable to the volatility of international commodities markets. Severely inadequate infrastructure deters private investment and undermines efforts to expand exports. Low investment in physical and human resources and a high level of external indebtedness make it even more difficult to lessen these constraints.

12. Economic trends in West Asia have resulted largely from developments in the international oil market, progress towards peace in the region, budget consolidation and structural reform. Several oil-exporting countries recently began a process of fiscal consolidation in response to budget deficits exacerbated by the costs of the Gulf War and unfavourable oil prices. This action has constrained growth in the region, despite the recent rise in oil prices. Reductions in government expenditures can be expected to streamline the public enterprise sector and restrict the scope of social benefits previously financed by Governments. Unemployment has become more serious and extensive, having spread to even those countries that have employed large numbers of foreign workers.

13. The progress of the Middle East peace process in the 1990s has improved the environment for private investment in oil-importing countries, particularly Israel, Jordan and Lebanon. There has been a significant increase in domestic and foreign investment since 1994 in production and infrastructure and economic growth in these countries rose as a result.

14. Economic growth in South and East Asia accelerated significantly after 1993, to around 7 per cent, from already substantial levels at the beginning of the 1990s (see table 1.1). Many of the rapidly growing countries benefited from strong domestic and foreign investment including high levels of infrastructure investment. In addition, robust export growth in the region, averaging about 14 per cent annually, was spurred by the sharp appreciation of the yen, strong growth in intraregional trade and recovery of import demand in developed economies. Strong financial inflows into many of these economies provided additional stimulus. By 1995, sustained high growth had begun to impose upward pressure on prices. In some countries, particularly Malaysia and Thailand, the external account deficit deteriorated to unsustainably high levels (9 per cent and 7.5 per cent) because of very strong import growth, primarily of capital goods needed for investment. In response, monetary policy was tightened. Thus far, this policy stance and slackening export growth have moderated economic growth.

15. In countries that have undergone successful macroeconomic stabilization and economic reform since the beginning of the decade, particularly India, the Philippines and Viet Nam, economic growth has accelerated substantially in the past few years. At the same time, some South Asian economies, Bangladesh, Pakistan and Sri Lanka, have met obstacles in reducing budget and current account deficits, which have been exacerbated by political conflict, labour unrest or continued sectarian violence. These deficits have, in turn, held down economic growth.

16. With a strong economic recovery in the early 1990s, China had peak growth in 1993, at about 13.5 per cent. But, accelerating inflation led the Government to implement tight monetary policies and administrative controls on investment. These policies have controlled inflation at around 10 per cent, while maintaining high growth (9-10 per cent). Strong domestic and foreign investment, large financial inflows and strong export growth were the main contributors to the strength of the Chinese economy over the past several years.

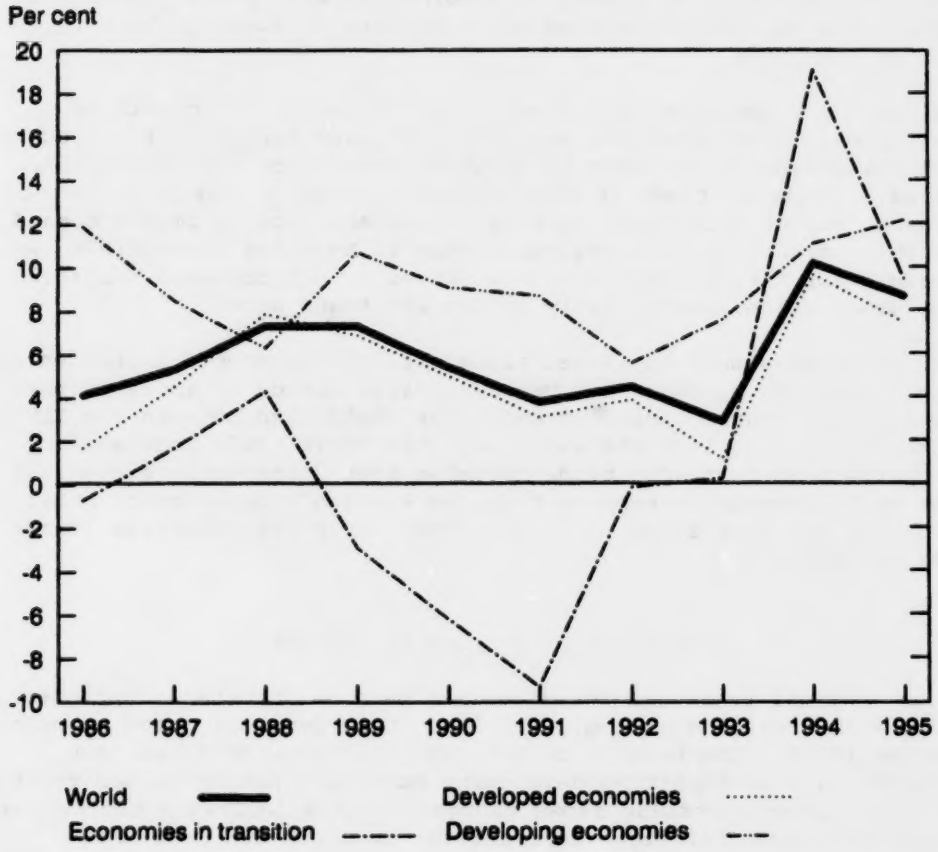
B. International economic environment

17. Domestic factors are primary determinants of national economic growth. With growing trade and financial liberalization in an increasing number of countries, dynamism and buoyancy in international trade and financial flows are also important to economic performance.

1. World trade

18. World trade has become much more dynamic in the past decade. The average annual increase in the volume of world trade soared from only 3.5 per cent in the first three years of this decade to 10 per cent in 1994, though moderated to under 9 per cent in 1995 (see figure 1.2). Growth has slowed further in 1996 to approximately 5.5 per cent. The rebound in 1994 was driven by strong import demand in the developed economies, generated by their economic recovery and exchange-rate realignments. As part of this trend international prices for oil and non-oil commodities rose substantially, improving export earnings of

Figure 1.2 Growth of export volume, 1986 - 1995



Source: World Economic and Social Survey 1996,(New York, United Nations) table A.19.
Note: Economies in transition excludes former Soviet Union because of lack of data.

commodity exporters. Many economies in South and East Asia have expanded exports of more technologically advanced "information-age" goods, which have been less vulnerable to cyclical demand and thus able to sustain their rapid export growth in the 1990s.

19. Regional economic integration has also contributed to the growth in international trade. Trading within Asia has continued strongly, fostered by intraregional investment in response to changing production specializations among countries.[1] Regional trade is also expanding among a growing number of Latin American countries with trade liberalization and growing import demand. In Africa as well, growth in intraregional trade is becoming discernible, with more widespread trade liberalization and increased competitiveness resulting from currency devaluation, particularly in the CFA franc zone.

20. Although the CEETEs have increased trade with the developed economies since the beginning of the 1990s, there has been a revitalization of intraregional trade in the last two years, including among the CEETEs and between the CEETEs and the CIS countries. In 1995 the value of intra-CEETE trade increased by 25 per cent. Growth in intra-CIS trade has also been discernible since 1995, with a 40 per cent increase in exports from the Russian Federation to other CIS countries and a 70 per cent surge in imports from other CIS countries in the first quarter of 1996.[2]

2. Access to international finance

21. Access to external financial resources has been an important supplement to domestic savings in financing economic development in developing and transition economies in the 1990s. The balance on net external resource flows (net transfers) to the capital-importing developing economies has increased rapidly (see table 1.2).[3] After portfolio flows plunged in 1994 following the Mexican crisis, net private financial flows to countries in South and East Asia recovered, and they surged to South Africa. Inflows to Latin America have recovered more slowly but are now rebounding strongly. In addition, net private financial flows surged to the CEETEs. While lower international interest rates after 1995 have helped to resume international financial flows, improved economic performance and continued economic reform have also played an important part. These developments are positive indications of the sustainability of private financial transfers to these regions.

22. The vastly increased importance of private international finance in this decade has benefits and risks. While recipient countries can benefit economically from these resources, their numbers are small (around 20), and many low-income and highly indebted countries are being by-passed. Furthermore, the experience of Mexico has underscored the potential volatility of short-term private financial flows and the costly economic adjustment that this approach can entail if appropriate policies are not followed. This event has heightened awareness of the necessary policies that recipient countries must adopt to

Table 1.2 BALANCE ON EXTERNAL RESOURCE FLOWS OF CAPITAL-IMPORTING DEVELOPING COUNTRIES, 1985-1995

(Billions of dollars)

Source	*1985*	*1986*	*1987*	*1988*	*1989*	*1990*	*1991*	*1992*	*1993*	*1994*	*1995*[a]
Flows through direct investment											
Net investment flows	8.3	6.1	9.3	15.4	17.4	16.8	22.7	30.9	46.8	58.7	63.6
Direct investment income: net	-8.7	-7.9	-8.9	-9.9	-11.5	-12.9	-12.6	-13.7	-16.2	-17.0	-17.8
Net resource flows	-0.4	-1.7	0.5	5.5	5.9	3.9	10.1	17.2	30.6	41.7	45.8
Flows through medium- and long-term foreign private borrowing											
Net credit flows	13.5	9.1	4.3	12.0	3.2	10.8	14.7	27.5	31.6	36.9	38.0
Interest paid	-38.9	-34.3	-33.5	-38.7	-32.6	-29.3	-28.1	-27.4	-24.8	-29.4	-42.3
Net resource flows	-25.5	-25.2	-29.2	-26.8	-29.4	-18.6	-13.5	0.1	6.8	7.5	-4.3
Flows through net stock transactions, short-term borrowing and domestic outflows[b]: net	-11.4	-6.8	-13.5	-22.3	-10.9	-2.5	21.7	24.6	36.8	1.6	29.3
Flows through private grants: net	-11.4	-6.8	-13.5	-22.3	-10.9	-2.5	21.7	24.6	36.8	1.6	29.3
Flows through official flows	3.7	4.7	5.0	6.2	4.8	6.3	7.9	9.5	9.0	7.9	8.0
Official transfers (grants)	10.8	10.3	11.7	12.3	13.3	17.6	17.7	15.8	12.7	10.4	10.4
Net official credits	19.0	18.5	16.0	13.5	20.1	22.2	20.6	16.3	17.4	10.4	35.9
Interest paid	-12.8	-15.7	-16.5	-17.9	-18.1	-20.6	-21.9	-22.1	-23.2	-24.5	-31.1
Net resource flows	17.0	13.1	11.2	7.9	15.4	19.2	16.4	10.0	7.0	-3.7	15.2
Total net resource flows (financial basis)	-16.5	-16.1	-23.0	-29.5	-14.3	8.2	42.6	61.4	90.2	55.0	94.0
Use of official reserves[c]	-0.8	12.0	-8.0	-2.9	-15.4	-36.4	-47.8	-47.2	-42.9	-19.4	-56.0
Total net resource flows (expenditure basis)	-17.3	-4.1	-34.0	-32.4	-29.7	-28.1	-5.2	14.2	47.3	35.6	38.0

Source: *World Economic and Social Survey, 1996* (New York, United Nations publication, Sales No. E.96.II.C.1), table A.27.

Note: The term "balance on external resource flows" is the same as "net transfer of financial resources". The sample consists of 93 countries, excluding the surplus-energy exporters (Brunei Darussalam, Iran (Islamic Republic of), Iraq, Kuwait, Libyan Arab Jamahiriya, Qatar, Saudi Arabia and the United Arab Emirates) and recent surplus countries (Hong Kong, Singapore and Taiwan Province of China). Direct investment is net of reinvested earnings (cash flow approach); official credits include use of IMF credit; interest includes IMF charges; private grants include net resource flow of gifts from overseas residents (excluding workers' remittances) and grants by non-governmental organizations.

a Preliminary estimate.

b Calculated as a residual (includes short-term trade financing, normal and unusual outflows ("capital flight"), arrears on interest due and other flows captured in balance-of-payments data as "errors and omissions" and presumed to be financial flowfls).

c Additions to reserves are shown as negative numbers.

minimize the destabilizing effects of financial inflows. Thus, concrete efforts have been made through the International Monetary Fund (IMF) to encourage sound policy-making and to establish safeguards to contain the effects of another large-scale financial crisis. These include enhanced surveillance of economic conditions in member countries and an emergency financing mechanism for countries in financial crisis, supported by greatly expanded funding.[4]

23. Low-income countries by-passed by private finance continue to rely heavily on official flows for net financial transfers. At the same time, flows of official development assistance (ODA) have begun to shrink. Developed country donors have been re-examining the goals and efficacy of official financial cooperation. Domestic political support for ODA in several industrialized countries has eroded seriously, although the commitment to ODA remains strong in many others. The amount of ODA from the donor countries in the Development Assistance Committee of the Organisation for Economic Cooperation and Development (OECD) was $59 billion in 1995, continuing a trend of stagnation since 1992. In real terms (taking into account price and exchange rate changes) the volume of ODA declined by 13 per cent between 1992 and 1995.[5] Moreover, the capacity of traditional donors in West Asia and the transition economies to provide aid has been undermined by economic difficulties resulting from diminished oil revenues, the costs of war and the dislocations of transition.

24. Many developing countries are still faced with excessive debt-servicing burdens. While Latin American countries have regularized their relations with creditors, many other developing countries, mainly in Africa, are still burdened with debt that they are unlikely to service. Prospects for reducing significantly the debt burden of these developing countries have improved markedly with the September agreement among Paris Club creditor countries, the IMF and the World Bank on a new initiative for official bilateral and multilateral debt relief. This agreement focuses on providing greater debt relief for "highly indebted poor countries" (HIPCs), whose current level of debt has been assessed as unsustainable and an insurmountable obstacle to the revival of economic growth.[6]

25. Debt relief itself is one component of the development programme required by the heavily indebted countries. Clearing arrears and establishing a sustainable debt-servicing position create an opportunity which, combined with structural adjustment and official financial support, can promote foreign and private investment and, thus, economic growth.

Notes

[1] For example, exports between selected developing countries in South and East Asia and China increased by 93 per cent between 1990 and 1994, whereas exports to the world grew by only 64 per cent. (See UNCTAD, Trade and Development Report 1996, New York, United Nations, 1996, Sales No. E.96.II.D.6), pp. 86-92.

[2] Trade statistics for CEETEs and CIS countries are from World Economic and Social Survey 1996 (New York, United Nations), pp. 61-62.

[3] The balance on net external resource flows (calculated on a financial basis) is defined as the sum of net financial inflows and investment income payments. Calculated on an expenditure basis, it includes changes in official reserve holdings. For the definition of this country grouping see note in table 1.2.

[4] See United Nations, Report of the Secretary-General, Global Financial Integration: Challenges and Opportunities (New York, September 1996, A/51/388), pp. 12-16.

[5] See OECD News Release (11 June 1996, SG/COM/NEWS(96)63), tables 1 and 2, and OECD, Development Cooperation, 1995 report of the Development Assistance Committee (Paris, 1996), statistical annex, table 4.

[6] See International Monetary Fund, International Monetary Survey (Washington, D.C., 14 October 1996), pp. 328-329.

Chapter II

POPULATION TRENDS

1. The purpose of this chapter is to examine the size and growth of the world population and regional populations, along with the demographic components of fertility, mortality and international migration that determine these trends.

2. The presentation is based on the results of the United Nations 1996 Revision of global population and demographic estimates and projections, prepared by the Population Division of the Department for Economic and Social Information and Policy Analysis.[1] As in the past revisions, population estimates and projections are prepared for the world, more developed regions,[2] less developed regions,[3] least developed countries,[4] 6 major areas,[5] 20 regions,[6] and 228 countries or areas. The population and demographic estimates presented are derived from available national data that have been evaluated, and, whenever necessary, adjusted for census undercounts and underrecording of vital events. The estimates for the world, major areas, regions and so on are aggregations from the national estimates and projections.

3. Population estimates are provided at five-year intervals from 1950 to 1995, with population projections carried out at five-year intervals from 1995 to 2050, using the component method. Assumptions are made for each country concerning future trends in fertility (three variants), mortality (one variant), and international migration (usually, one variant).

4. The newly announced data from the 1996 Revision broadly confirm conclusions found in the 1994 Revision: notably slower population growth, lower levels of fertility, more diverse trends in mortality and greater migration flows during the first half of the 1990s than experienced in prior decades. In fact, the 1996 Revision shows that population growth fell faster, national fertility declines were broader and deeper, and migration flows were larger than previous estimates had indicated.

A. Population size and growth

5. In mid-1996 world population stood at 5.77 billion (table 2.1). Since mid-1995, world population grew by 81 million and annual growth is expected to remain at this level until 2000. Currently, 4.59 billion people or 80 per cent of the world's population live in the less developed regions. The total population size in the more developed regions is 1.18 billion.

Table 2.1 World population, past estimates and medium-variant projections

Year	Population (billions)
1950	2.52
1990	5.28
1996	5.77
2000	6.09
2015	7.29
2025	8.04
2050	9.37

Source: United Nations, World Population Prospects: The 1996 Revision (New York, United Nations publication, forthcoming).

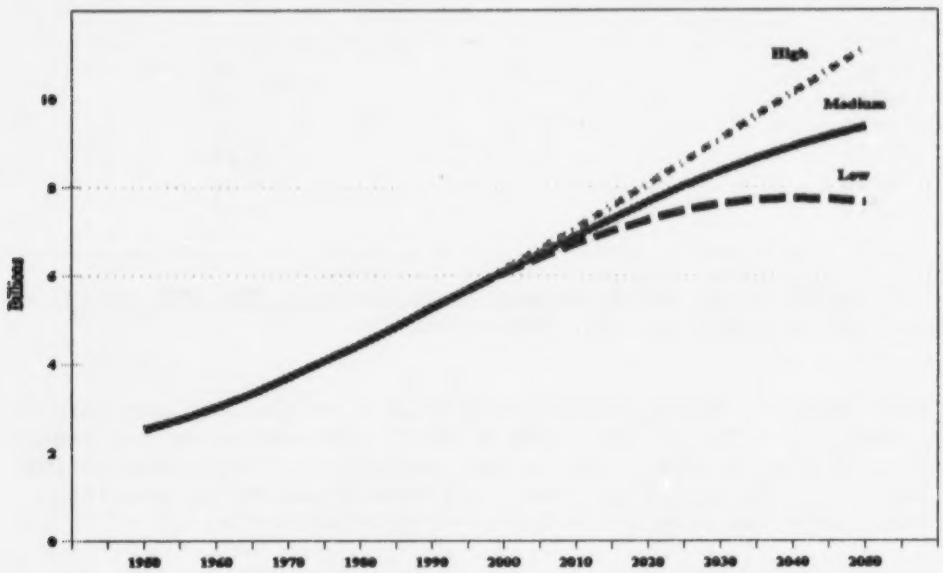
6. Between 1990 and 1995 world population grew at 1.48 per cent per year, significantly below the 1.72 per cent rate at which the population had been growing for the past two decades. The current population growth rate is the lowest since the Second World War and marks the resumption of the declining growth rates that prevailed from the mid-1960s to the mid-1970s.

7. United Nations medium fertility-variant projections indicate that the population growth rate will continue declining, to 1.37 per cent per year in 1995-2000, and 0.45 per cent in 2045-2050. Consequently, the world population is projected to reach 6.09 billion in 2000 and 9.37 billion in 2050 (figure 2.1).

8. Despite the decline in the rate of growth, the annual increment to the world's population will remain steady, around 80 million per year through 2025, and will gradually decline thereafter to 41 million between 2045 and 2050, about half of the current annual increment (figure 2.2).

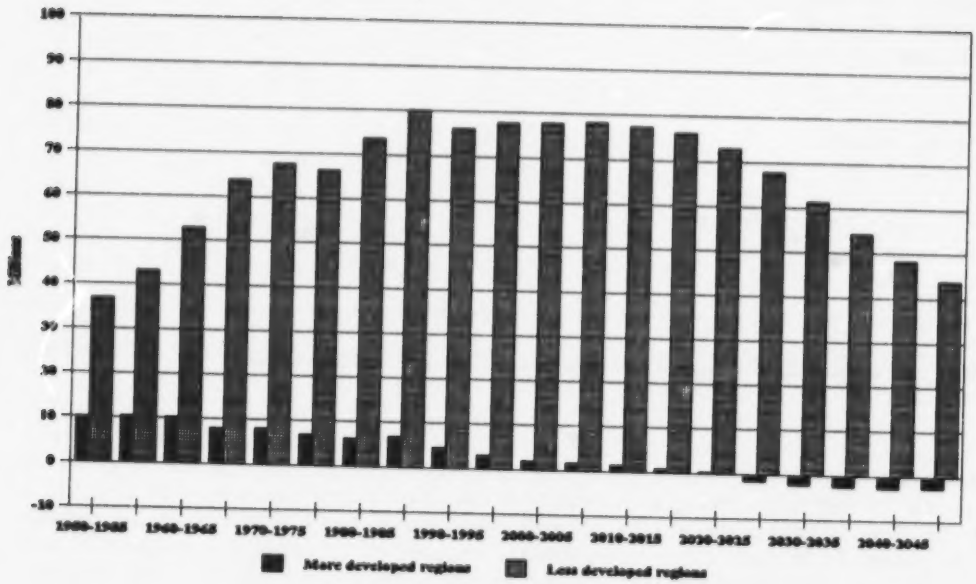
9. Between 1950 and 1996, the population of the less developed regions increased by 168 per cent, compared with an increase of 45 per cent for the more developed regions. Between 1990 and 1995 the population of the less developed regions grew at 1.8 per cent per year. During that period the population of the more developed regions grew at an annual rate of 0.4 per cent (table 2.2). According to the medium-variant projections the population of the less developed regions will increase by a further 79 per cent between 1996 and 2050. In contrast, the population of the more developed regions is expected to increase to 1.22 billion by 2025 and decline thereafter so that the population in 2050 will be 1 per cent less than it was in 1996.

Figure 2.1 World Population Growth, 1950 - 2050
(Estimates and medium-, high- and low-fertility variants)



Source: United Nations, World Population Prospects: The 1996 Revision, (New York, United Nations publication, forthcoming).

Figure 2.2 Average Annual Population Increase: World and more developed and less developed regions, 1950-2050



Source: United Nations World Population Prospects: 1996 Revision, (New York, United Nations publication, forthcoming).

Table 2.2 Population growth rate of the world, more developed and less developed regions, and major areas

	1950-1955	1990-1995	2045-2050
World	1.8	1.5	0.5
More developed regions	1.2	0.4	-0.2
Less developed regions	2.1	1.8	0.6
Least developed countries	1.9	2.6	1.1
Africa	2.2	2.7	1.1
Asia	1.9	1.5	0.3
of which, China	1.9	1.1	-0.1
India	2.0	1.8	0.4
Europe	1.0	0.2	-0.4
Latin America and the Caribbean	2.7	1.7	0.5
Northern America	1.7	1.0	0.1
Oceania	2.2	1.4	0.4

Source: World Population Prospects: The 1996 Revision (United Nations publication, forthcoming).

10. The substantial consequences of the differences in population growth rates across regions is perhaps best illustrated by examining the average annual increments to the total population of the more developed and the less developed regions. Between 1950 and 1955 the annual increment to world population was 47 million people. Of this total, 22 per cent came from the more developed regions and 78 per cent from the less developed regions. By 1990-1995, 6 per cent of the annual increment originated in the more developed regions, while 94 per cent originated in the less developed regions. By 2045-2050 the population of the more developed regions is expected to be declining so that all of the net population growth will come from the less developed regions.

11. The 48 least developed countries are characterized by higher fertility, higher mortality and higher population growth rates than the other countries of the less developed regions. Between 1950 and 1995 the population of the least developed countries increased by 193 per cent, compared with 160 per cent for the other less developed countries. And by 1995, 579 million persons lived in the least developed countries. Between 1990 and 1995 the annual population growth rate of the least developed countries was 2.6 per cent, almost a full percentage point greater than that of the other countries in the less developed regions. In fact, during that period the 48 least developed countries accounted for 17 per cent of total world population growth.

12. Population distribution and population growth differ markedly among the major areas of the world, currently and have historically. Between 1950 and 1995 the population of Africa grew from 224 million to 720 million. Africa's average increase of 2.6 per cent per year (221 per cent growth in total) was the

fastest population growth rate during that period. The populations of Latin America and Asia have also grown at more than 2 per cent per year since 1950. Growing at an annual rate of 2.3 per cent, the population of Latin America rose from 166 million in 1950 to 477 million in 1995. The population of Asia has grown at 2 per cent per year and totalled 3.4 billion in 1995. In contrast, the population of Europe grew by only 0.6 per cent per year. Europe is the only major area whose annual growth rate was less than 1 per cent during 1950-1995.

13. Africa continues to exhibit the highest population growth rate 2.7 per cent per year in 1990-1995. Latin America and the Caribbean is growing a full percentage point slower (1.7 per cent). Asia is growing at 1.5 per cent per year, Oceania at 1.4 per cent and North America at 1.0 per cent.

14. Population is growing slowest in Europe, where it is nearly stationary. The four regions of Europe have experienced very different trends recently. Western Europe is exhibiting the highest annual population growth rate among the more developed regions 0.56 per cent during 1990-1995. The current growth rate is higher than that exhibited during 1980-1985 (0.14 per cent) or 1985-1990 (0.49 per cent). The rise is mainly due to increasing numbers of migrants entering the region (particularly Germany): 153,000 between 1980 and 1985, 2,790,000 between 1985 and 1990, and 4,208,000 between 1990 and 1995. In contrast, the population growth rate of Eastern Europe turned negative during 1990-1995 those years characterized by out-migration sharp fertility declines and rising or stagnant mortality.

15. Southern Europe has exhibited a downward trend in the rate of population growth during the past 15 years from an average annual rate of 0.80 per cent in 1975-1980, 0.41 per cent in 1980-1985, 0.33 per cent in 1985-1990 and 0.04 per cent in 1990-1995. The dramatic decline in Southern Europe's total fertility rate from 2.3 children per woman in 1975-1980 to 1.4 children in 1990-1995 has been a key factor in the region's slow rate of growth. The population growth rate in Northern Europe stands at 0.2 per cent per year, half the level of the growth rate recorded during 1985-1990 and similar to the rate prevalent during 1975-1985. These trends are consistent with movements in fertility; data show that fertility levels bottomed out in Northern Europe at 1.81 children per woman in 1975-1985, rose slightly to 1.84 in 1985-1990 and fell again to 1.81 in 1990-1995.

16. Of the 81 million people added annually to the world's population during 1990-1995, 69 million (85 per cent) are Asian and African. Of this total figure 51 million (63 per cent) are Asian (13 million from China and 16 million from India).

17. The medium-variant projections indicate that the population of Africa will increase by 184 per cent between 1995 and 2050. The projected population of 2.1 billion people in 2050 will be almost 3 times its 1995 population and almost 10 times its 1950 population. The projected African population growth rate is far greater than that of any other major area. Between 1995 and 2050 Latin America and the Caribbean is projected to increase by 70 per cent, Asia by 58 per cent and North America by 30 per cent. The population of Europe is projected to decline by 13 per cent during those years.

B. Fertility

18. Estimates for the decade 1980-1985 to 1990-1995 suggest that the average total fertility rate (TFR) in the world has continued to decline and at a somewhat faster pace during 1990-95 than in the past. During the decade, the world TFR fell by 17 per cent, from 3.6 to 3.0 births per woman. The world average, however, conceals large differences across countries and regions. Indeed, during 1990-1995 the average TFR for the more developed region was only 1.7 births per woman compared with 5.5 births for the least developed countries (see table 2.3), a disparity that strongly reflects the differences in social and economic development and contraceptive prevalence between those two groups of countries.

Table 2.3 Estimated fertility rates and percentage change: the world, major areas and regions, 1980-1985, 1985-1990 and 1990-1995 (per cent)

Major area and region	Total fertility rates[a]			Percentage change		
	1980-1985	1985-1990	1990-1995	1980-1985 to 1985-1990	1985-1990 to 1990-1995	1980-1985 to 1990-1995
World total	3.6	3.4	3.0	-5.6	-11.8	-16.7
More developed region	1.8	1.8	1.7	0.0	-5.6	-5.6
Less developed region	4.1	3.8	3.3	-7.3	-13.2	-19.5
Least developed countries	6.4	6.0	5.5	-6.3	-8.3	-14.1
Africa	6.3	6.0	5.7	-4.8	-5.0	-9.5
Eastern Africa	6.9	6.7	6.4	-2.9	-4.5	-7.2
Middle Africa	6.5	6.5	6.4	0.0	-1.5	-1.5
Northern Africa	5.6	4.8	4.1	-14.3	-14.6	-26.8
Southern Africa	4.9	4.5	4.2	-8.2	-6.7	-14.3
Western Africa	6.7	6.6	6.4	-1.5	-3.0	-4.5
Asia	3.7	3.4	2.8	-8.1	-17.6	-24.3
East Asia	2.5	2.4	1.9	-4.0	-20.8	-24.0
South-Central Asia	4.9	4.4	3.7	-10.2	-15.9	-24.5
South-East Asia	4.2	3.6	3.2	-14.3	-11.1	-23.8
Western Asia	5.0	4.7	4.1	-6.0	-12.8	-18.0
Europe	1.9	1.8	1.6	-5.3	-11.1	-15.8
Eastern Europe	2.1	2.1	1.6	0.0	-23.8	-23.8
Northern Europe	1.8	1.8	1.8	0.0	0.0	0.0
Southern Europe	1.8	1.6	1.4	-11.1	-12.5	-22.2
Western Europe	1.6	1.6	1.5	0.0	-6.3	-6.3
Latin America	3.8	3.3	2.9	-13.2	-12.1	-23.7
Caribbean	3.1	2.9	2.7	-6.5	-6.9	-12.9
Central America	4.5	3.9	3.4	-13.3	-12.8	-24.4
South America	3.7	3.2	2.8	-13.5	-12.5	-24.3
North America	1.8	1.9	2.0	5.6	5.3	11.1
Oceania	2.6	2.5	2.5	-3.8	0.0	-3.8

Source: United Nations World Population Prospects: the 1996 Revision, (New York, United Nations publication, forthcoming).

[a] Number of births per woman.

19. Estimates show that fertility in the less developed regions remains relatively high. Fertility continues to be highest in Africa. The African TFR in 1980-1985 was almost twice as high as that of other less developed regions: 6.3 births per woman in Africa compared with 3.8 in Latin America and 3.7 in Asia. By 1990-1995, despite a slow but continuous decline, Africa's TFR was still estimated to be as high as 5.7, compared with 2.9 in Latin America and 2.8 in Asia. The decennial decline of 10 per cent during that period is less than half the decline in Asia and Latin America (see table 2.3).

20. Within Africa, large regional differences prevail. Middle, Eastern and Western Africa have the highest fertility rates, where women average 6.4 births and where, during the past decade, fertility barely declined: 7 and 5 per cent respectively in Eastern and Western Africa, and 2 per cent in Middle Africa. Conversely, in Northern and Southern Africa, the TFRs are much lower, 4.1 and 4.2 births per woman, a decline of 27 per cent for Northern Africa (the largest reduction in the world during the decade) and 14 per cent for Southern Africa (see table 2.3). Differences in modernization, economic development, social change and contraceptive use underlie the different patterns of fertility change.

21. A large number of recent demographic surveys now allow a better assessment and understanding of the fertility patterns in Africa. While in the 1970s the high African fertility rate was sustained by sub-Saharan countries, where fertility exceeded seven or even eight births per woman, in the 1990s most of those countries experienced substantial fertility declines, notably Kenya, where the TFR of 8.0 in 1977-1978 fell to 5.4 in 1990-1993, and Rwanda, where the TFR of 8.5 in 1978-1983 fell to 6.2 in 1989-1992. But, most of the reduction in sub-Saharan Africa is found in countries that started their fertility transition in the 1980s. The sharpest reductions in TFR were experienced in Northern Africa, notably Algeria, where the TFR fell from 8.1 in 1970 to 4.4 in 1987-1992. In Egypt and Morocco fertility also fell to levels below 5.0, and was as low as 3.3 in Tunisia in 1992. The lowest TFR in Africa, 2.3,was observed in Mauritius in 1990; the highest, 7.4, the third highest in the world, was in Niger.

22. Asia and Latin America have experienced similar rates of fertility decline, about 24 per cent, during the past decade and reached similar TFRs in 1990-1995, at 2.8 and 2.9 births per woman. The regional fertility patterns in those two major areas are, however, quite different. In Asia the overall average marks of relatively large regional differences. The differences in TFRs in 1990-1995 exceed two births per woman, ranging from a below-replacement level of 1.9 in East Asia to 4.1 and 3.7 in Western Asia and South-Central Asia. Differences are even larger at the individual country level: Gaza's TFR of 8.8 and Yemen's TFR of 7.6 are the highest in the world, while at the other extreme, Japan reports a TFR of 1.5. The 24 per cent decline in Asia from 1980-1985 to 1990-1995 is a result of the rapid decline (24 per cent) of the highly populated/low-fertility countries of East Asia (the latter decline is readily accounted for by the sharp fertility decline in China) and the smaller (18 per cent) reduction that took place in the high-fertility countries of Western Asia (see table 2.3).

23. In Latin America average TFR levels are comparatively more uniform. In 1990-1995 they ranged from 2.7 in the Caribbean to 3.4 in Central America. Deviations from this range are, however, found in some Caribbean islands, such as Bahamas, Barbados and Cuba, where the TFR was below the population replacement level in 1990-1995. At the opposite end of the scale stands Honduras, with a TFR of 4.9 in 1990-1995. Central America experienced the largest fertility decline in Latin America (24 per cent) during the 1990s with a decline in its TFR from 4.5 to 3.4.

24. In the more developed regions the situation has changed little overall. With average TFRs in the range of 1.7 to 1.8, fertility in the region was below replacement level during the past decade, with the overall TFR declining by only 6 per cent. However, there are also major differences within the more developed regions. In Europe TFRs have continued to decline from 1.9 to 1.6 births per woman, about a 16 per cent reduction during the decade, reflecting the compensating effects of fertility trends in different European regions. The average TFR remained constant in Northern Europe (at 1.8), whereas it fell by over 20 per cent in Southern Europe from 1.8 in 1980-1985 to 1.4 in 1990-1995. In Eastern Europe the TFR fell from 2.1 to 1.6 in 1990-1995 and in Western Europe it declined from 1.6 to 1.5 (table 2.3). As of 1990-1995, the lowest European TFR is that of Italy, 1.2, and the highest is that of Albania, 2.9.

25. In North America fertility is on an upward trend, and TFRs evolved from 1.8 in 1980-1985 to 2.0 in 1990-1995, representing an increase of about 11 per cent. In Australia and New Zealand (the developed countries of Oceania), fertility remained constant at 1.9 during the same period, compared with the whole of Oceania, where TFRs still fluctuate at about 2.6-2.5 (table 2.3).

C. Mortality

26. Mortality is continuing to decline in most countries. Globally, life expectancy at birth reached 64.3 years in 1990-1995, an increase of 6.4 years since 1970-1975. Life expectancy at birth in the more developed regions was 74.2 years, more than 12 years higher than that in the less developed regions (62.1 years), which was in turn more than 12 years higher than the average life expectancy in the least developed countries (49.7 years) (table 2.4). Life expectancy is highest in the major areas constitute of North America (76.2 years), followed by Europe (72.7 years) and Oceania (72.9 years). It is lowest in Africa (51.8 years). Asia and Latin America fell in-between, with life expectancies of 64.5 years and 68.5 years. In 1990-1995 there were three regions with an average life expectancy of less than 50 years: Eastern Africa, Middle Africa and Western Africa. The lowest life expectancies in the world are in Rwanda (22.6 years), Sierra Leone (34.4 years) and Uganda (41 years). It is estimated that, on average, life expectancy is above 75 years in Northern Europe, Southern Europe, Western Europe, North America, Australia and New Zealand. Japan has the highest life expectancy in the world at 79.5 years, followed by Iceland at 78.8 years and Canada at 78.5 years.

Table 2.4 Estimates of life expectancy and infant mortality for major areas and regions of the world, 1990-1995

	Life expectancy			*Infant mortality rate a*
	Both sexes	*Male*	*Female*	
World	64.3	62.2	66.5	62
More developed regions	74.2	70.4	78.0	11
Less developed regions	62.1	60.6	63.7	68
Least developed countries	49.7	48.7	50.8	109
Africa	51.8	50.4	53.3	94
Eastern Africa	46.7	45.4	48.0	108
Middle Africa	51.0	49.3	52.7	97
Northern Africa	62.1	60.8	63.4	67
Southern Africa	62.1	59.3	64.9	55
Western Africa	49.5	48.0	51.1	98
Asia	64.5	63.2	66.0	62
East Asia	69.7	67.6	71.9	41
South-Central Asia	60.4	59.9	60.8	78
South-East Asia	63.7	61.7	65.6	54
Western Asia	66.3	64.4	68.4	60
Europe	72.7	68.5	76.9	13
Eastern Europe	68.2	63.0	73.6	19
Northern Europe	75.8	72.8	78.8	7
Southern Europe	76.0	72.7	79.3	11
Western Europe	76.7	73.2	80.2	7
Latin America	68.5	65.3	71.8	40
Caribbean	68.5	66.4	70.8	43
Central America	70.5	67.6	73.4	37
South America	67.8	64.4	71.4	41
North America	76.2	72.8	79.5	9
Oceania b	72.9	70.3	75.6	26
Australia and Zealand	77.4	74.5	80.3	7

Source: United Nations World Population Prospects: The 1996 Revision, (New York, United Nations publication, forthcoming).

[a] Deaths per 1,000 births.

[b] Includes Melanesia, Micronesia and Polynesia.

27. The gap in life expectancy at birth between Eastern, Middle and Western Africa, on the one hand, and Northern and Southern Africa, on the other, has increased over the past 20 years. Eastern, Middle and Western Africa have registered only a 2 to 7-year increase in life expectancy over the 20-year period, whereas in Northern and Southern Africa, life expectancy rose by about 10 years. Eastern, Middle and Western Africa have been worst hit by the acquired immunodeficiency syndrome (AIDS) epidemic, which, along with war and its effects, accounts in part for the widening gap in life expectancy.

28. In the regions of Europe life expectancy increased by about 3-5 years between 1970-1975 and 1990-1995, except in Eastern Europe, where life expectancy declined from 69.4 years in 1970-1975 to 68.2 years in 1990-1995. Already by 1980-1985 a decline in life expectancy to 69 years was evident. These reductions can be largely attributed to an increase in death rates from cardiovascular diseases. Between 1989 and 1993 the situation worsened, as death rates from cardiovascular diseases, cancer, digestive diseases, infectious diseases and external causes, including suicides and accidents, all increased.[8] The worst affected have been men between the ages of 20 and 59 years.

29. On average, women can be expected to live about four years longer than men. For the world, life expectancy for men is 62.2 years while that for women is 66.5 years (table 2.4). In the more developed regions this male-female disparity is as high as 7.6 years, whereas in the less developed regions women live only 3 years longer than men. In most major areas of the world, the gap between male and female life expectancies increased or stayed the same between 1970-1975 and 1990-1995. In North America, however, female life expectancy improved by four years over the past two decades, while male life expectancy improved by five years, thereby decreasing the male-female gap from 7.7 years to 6.7 years. The male-female gap also decreased slightly in Africa, from 3.1 to 2.9 years, and in Oceania, from 5.4 to 5.3.

30. South-Central Asia has the lowest sex differential in life expectancy. Male life expectancy is less than one year lower than female life expectancy. In 1970-1975, male life expectancy was 50.8 years, 1.2 years higher than that for women. Over the past 20 years, however, women made greater improvements than men: by 1990-1995, female life expectancy was 0.9 years higher. Eastern Europe has the highest sex differential in life expectancy. Women in Eastern Europe with a life expectancy of 73.6 years in 1990-1995 could expect to live 10.6 years longer than men, a differential that has increased from 8.6 years in 1970-1975. This widening gap is caused mainly by a decline in male life expectancy from 64.8 years in 1970-1975 to 63.0 years in 1990-1995. In contrast, female life expectancy increased from 73.4 years to 73.6 years over the same period.

31. The infant mortality rate for the world was estimated to be 62 deaths per 1,000 births in 1990-1995 (table 2.4). In the more developed regions the infant mortality rate was 11 per 1,000, but the corresponding rates is more than six times as large, 68 per 1,000 births, in the less developed regions. Although the difference in infant mortality rates between the more developed and the less developed regions has declined from 83 in 1970-1975 to 57 in 1990-1995, the ratio of infant mortality in the less developed regions to that in the more developed regions has increased from about 5:1 in 1970-1975 to almost 6:1 in 1980-1985, and to slightly more than 6:1 in 1990-1995.

32. During 1990-1995 infant mortality was estimated to be above 60 in two major areas: Africa, with a rate of 94 deaths per 1,000 live births, and Asia, with 62 deaths per 1,000 live births. Infant mortality rates were greater on average than 90 deaths per 1,000 live births in all of Africa, except for Southern Africa. At the other extreme, infant mortality rates were below 10 per 1,000 in Northern and Western Europe, North America, and Australia and New Zealand.

33. The average infant mortality rate for Africa was the highest in the world during 1990-1995. Although important progress has been made in reducing childhood mortality rates in Africa over the past two decades Africa's average infant mortality rate fell by 36 infant deaths per 1,000 births from 1970-1975 to 1990-1995 the largest absolute decrease among all major areas in the world occurred in Latin America and the Caribbean, where the average infant mortality rate fell by 40 infant deaths per 1,000 births from 1970-1975 to 1990-1995. Notable, also, is the decline in Northern Africa, where infant mortality fell from 132 to 67 deaths per 1,000 births. But, in some countries infant mortality has remained virtually stagnant or has even increased, such as in Armenia, Iraq, Liberia, Sierra Leone and Uganda.

34. According to World Health Organization (WHO) reports, Africa is still the area most affected by the AIDS epidemic.[9] As of late 1994, nearly two thirds (about 11 million adults) of all HIV cases were in Africa. However, the epidemic is expanding rapidly in some parts of South and South-East Asia, and the annual number of new infections in Asia is expected to surpass that of Africa if the current rate of infection continues. WHO estimates that there were more than 3 million AIDS cases by the end of 1994 in Africa, constituting more than 70 per cent of the total number of cases in the world. Nine per cent occurred in the United States, more than 9 per cent in Latin America and the Caribbean, and 4 per cent in Europe. Because the epidemic started relatively recently in Asia, about 6 per cent of the AIDS cases in the world occurred there.

D. International migration

35. Over the past decade, international migration has been the component of population most clearly affected by the momentous changes in the world geopolitical order. In particular, the disintegration of nation-States has resulted in significant population movements. Thus the conflict that has accompanied the disintegration of some States has led to visible and substantial flows of refugees, asylum-seekers and displaced persons who have brought migration issues to the forefront of the international agenda. But, such developments have yet to be translated into better monitoring systems for quantifying international migration. Consequently, the data available on recent developments are still somewhat sketchy. Indeed, even for earlier periods the available estimates are generally partial (referring to only a few countries or regions) and lack comparability; hence the importance of having a set of comparable estimates for the world. Such estimates have now been derived for 1965, 1975, 1985 and 1990.

36. Estimates of the stock of international migrants in every country as of the beginning of 1965, 1975, 1985 and 1990 have been derived from information on the size of the foreign-born population (or, in some cases, the foreign population) enumerated by the censuses of different countries, as well as from information on the number of refugees present in developing countries. The estimates indicate that the world's stock of international migrants increased from 75 million persons in 1965 to 119 million by 1990 (table 2.5). Thus, over 1965-1990, the annual rate of growth of the migrant stock was 1.9 per cent. However, estimates of the rate of growth for intermediate periods indicate that

TABLE 2.5 KEY INDICATORS OF TRENDS IN MIGRANT STOCK, BY REGION: 1965, 1975, 1985 AND 1990

Region	Estimated foreign-born population (thousands)				As percentage of total population				Annual rate of change [a]				Percentage distribution by region			
	1965	1975	1985	1990	1965	1975	1985	1990	1965-1975	1975-1985	1985-1990	1965-1990	1965	1975	1985	1990
World total	75,214	84,494	105,194	119,761	2.3	2.1	2.2	2.3	1.2	2.2	2.6	1.9	100.0	100.0	100.0	100.0
Developed countries	30,401	38,317	47,991	54,231	3.1	3.5	4.1	4.5	2.3	2.3	2.4	2.3	40.4	45.3	45.6	45.3
Developing countries	44,813	46,177	57,203	65,530	1.9	1.6	1.6	1.6	0.3	2.1	2.7	1.5	59.6	54.7	54.4	54.7
Africa	7,952	11,178	12,527	15,631	2.5	2.7	2.3	2.5	3.4	1.1	4.4	2.7	10.6	13.2	11.9	13.1
Northern Africa	1,016	1,080	2,219	1,982	1.4	1.1	1.8	1.4	0.6	7.2	-2.3	2.7	1.4	1.3	2.1	1.7
Sub-Saharan Africa	6,936	10,099	10,308	13,649	2.9	3.2	2.5	2.8	3.8	0.2	5.6	2.7	9.2	12.0	9.8	11.4
Asia	31,429	29,662	38,731	43,018	1.7	1.3	1.4	1.4	-0.6	2.7	2.1	1.3	41.8	35.1	36.8	35.9
East and South-East Asia	8,136	7,723	7,678	7,931	0.7	0.5	0.5	0.4	-0.5	-0.1	0.6	-0.1	10.8	9.1	7.3	6.6
China	266	305	331	346	0.0	0.0	0.0	0.0	1.4	0.8	0.9	1.0	0.4	0.4	0.3	0.3
Other East and South-East Asia	7,870	7,419	7,347	7,58	1.9	1.5	1.2	1.2	-0.6	-0.1	0.6	-0.1	10.5	8.8	7.0	6.3
South-Central Asia[a]	18,610	15,565	19,243	20,78.	2.8	1.9	1.8	1.8	-1.8	2.1	1.5	0.4	24.7	18.4	18.3	17.4
Western Asia	4,683	6,374	11,810	14,304	7.4	7.6	10.4	10.9	3.1	6.2	3.8	4.5	6.2	7.5	11.2	11.9
Latin America and the Caribbean	5,907	5,788	6,410	7,475	2.4	1.8	1.6	1.7	-0.2	1.0	3.1	0.9	7.9	6.9	6.1	6.2
Caribbean	532	665	832	959	2.4	2.5	2.7	2.9	2.2	2.2	2.8	2.4	0.7	0.8	0.8	0.8
Central America[b]	445	427	948	2,047	0.8	0.6	1.0	1.8	-0.4	8.0	15.4	6.1	0.6	0.5	0.9	1.7
South America	4,930	4,695	4,629	4,469	3.0	2.2	1.8	1.5	-0.5	-0.1	-0.7	-0.4	6.6	5.6	4.4	3.7
North America	12,695	15,042	20,460	23,895	6.0	6.3	7.8	8.6	1.7	3.1	3.1	2.5	16.9	17.8	19.5	20.0
Europe and the Soviet Union (former)	14,728	19,504	22,959	25,068	2.2	2.7	3.0	3.2	2.8	1.6	1.8	2.1	19.6	23.1	21.8	20.9
Countries with economies in transition[c]	2,835	2,394	2,213	2,055	2.4	1.9	1.6	1.7	-1.7	-0.8	-1.5	-1.3	3.8	2.8	2.1	1.7
Soviet Union (former)	140	148	156	159	0.1	0.1	0.1	0.1	0.6	0.5	0.5	0.5	0.2	0.2	0.1	0.1
Other Europe	11,753	16,961	20,590	22,853	3.6	4.9	5.8	6.1	3.7	1.9	2.1	2.7	15.6	20.1	19.6	19.1
Oceania	2,502	3,319	4,106	4,675	14.4	15.6	16.9	17.8	2.8	2.1	2.6	2.5	3.3	3.9	3.9	3.9

Source: Derived from Trends in Total Migrant Stock, Rev.3, a database maintained by the Population Division of the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat.

[a] Excluding Armenia, Azerbaijan, Georgia, Kazakstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan.

[b] Including Mexico.

[c] Including Albania, Bulgaria, the former Czechoslovakia, the former Democratic Republic of Germany, Hungary, Poland, Romania and the former Yugoslavia. Excluding the former Union of Soviet Socialist Republics.

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the pace at which the world's migrant stock has been increasing has quickened, passing from 1.2 per cent per year during 1965-1975 to 2.2 per cent during 1975-1985, and reaching 2.6 per cent in 1985-1990. The experience of developed and developing countries contrasts markedly. Thus, whereas the annual growth rate of the international migrant stock in the developed countries increased only moderately, passing from 2.3 per cent per year during 1965-1975 to 2.4 per cent during 1985-1990, that of the total number of migrants in the developing countries increased ninefold, rising from 0.3 per cent during 1965-1975 to 2.7 per cent during 1985-1990.

37. Despite the rapid growth of the number of international migrants in the developing countries, by 1990 they accounted for only 55 per cent of the world's migrant stock, whereas the developing countries accounted for 72 per cent of the world's population. Consequently, the proportion of international migrants among the total population of developing countries remains low (1.6 per cent). In contrast, international migrants constitute 4.1 per cent of the population of developed countries. Thus, proportionately, international migration continues to have greater numerical importance for the developed world.

38. There has been considerable variation in the growth and distribution of international migrants among the major world regions (table 2.5). By 1990 Europe and North America were hosting 24 and 25 million international migrants. In North America the United States alone hosted 20 million international migrants, a number that includes the majority of the nearly 3 million undocumented migrants whose status was regularized by the Immigration Reform and Control Act of 1986. In the developing world Asia has been hosting the largest number of migrants (43 million in 1990). But, their distribution over the continent is far from uniform. East and South-East Asia, a region that includes China and Japan, have had relatively few international migrants (nearly 8 million), despite the fact that labour shortages in the newly industrializing economies of that region and in Japan have been fuelling increased interregional migration. According to some estimates, by the early 1990s Japan was hosting nearly 300,000 undocumented migrants in addition to the million or so foreign residents legally present in the country. Taiwan Province of China has had about 45,000 migrants in an irregular situation, whereas in the Republic of Korea a regularization drive carried out in 1992 had produced 61,000 applications. Similarly, in Malaysia 320,000 undocumented migrants applied for legalization under an amnesty programme instituted in 1992.[10] Such numbers indicate that, despite a reluctance to import foreign workers, the rapidly growing economies of Asia may have to do so to remain competitive.

39. The largest concentration of international migrants in Asia is found in South-Central Asia, particularly in India and Pakistan, where the survivors of the 1948 partition of those countries and the remaining refugees from Afghanistan account for most of the 16 million migrants. In Western Asia, the rapid increase in the migrant stock since 1975 is associated with the inflow of foreign workers to the oil-producing countries of the region, whose revenues increased markedly after the oil-price rises of the 1970s. Although the pace of worker migration to Western Asia declined somewhat during the 1980s, the migrant stock in the oil-producing countries continued to grow during that decade. Despite the massive repatriations incurred from the Gulf War and its aftermath,

statistics on outflows from the main source countries for foreign workers indicate that labour flows to Western Asia have not abated during the 1990s.

40. The marked increase in the number of international migrants in Central America is the result of the civil strife and conflict that reigned in the region during the 1980s, and which have since largely abated. In South America migration, which is mostly interregional, did not increase the migrant stock over the period considered, whereas in the Caribbean the number of international migrants, though small, increased in the late 1980s.

41. In Europe increases in the migrant stock during 1985-1990 were associated with the changes that led to the end of the Cold War and with the relaxation of exit controls in Eastern and Central European countries, as well as in the former Soviet Union. As a result of such changes, a growing number of citizens from those countries found their way to the market economies of Europe, where they sought asylum within the context of the waning Cold War or were admitted as immigrants under special categories. The latter categories include the Aussiedler, admitted by the Federal Republic of Germany, who were people of German descent originating in transition countries other than the former German Democratic Republic, and the Pontian Greeks, people of Greek descent, originating mostly in the former Soviet Union, who were admitted to Greece. During 1985-1990 the Federal Republic of Germany admitted 1.1 million Aussiedler from countries in transition. Indeed, the increase in Aussiedler admissions proceeded so quickly after 1988 that once East and West Germany were reunified, the Government of Germany imposed limits on the number that was admitted annually and provided persons of German descent living in countries in transition with alternatives to emigration. Also indicative of the growth of East-West migration during the 1980s was the fact that out of the 1.3 million persons filing asylum applications in countries with market economies during 1983-1989, 30 per cent originated in countries with economies in transition.

42. The breakup of the Soviet Union increased concern about the possibilities of further migration to the developed countries. Although large East-West flows have failed to materialize, there have nevertheless been important changes in the migration dynamics of the region, paramount of which is the growing migration directed towards the Russian Federation, as ethnic Russians move there from other successor States. In addition, flows of refugees or forced migrants between successor states experiencing ethnic conflict have been growing, and there are reports of new migration flows directed to certain Central and Eastern European countries. Thus, 35,000 citizens of the former Soviet Union, 20,000 Romanians and up to 10,000 people from Bulgaria and the former Yugoslavia were reported to be present illegally in the Czech Republic and Slovakia in 1992.[11]

43. Since 1990 the major source of migrants in Europe has been the former Yugoslavia, whose dissolution has involved armed conflict in Croatia and Bosnia-Herzegovina and has led to the largest movement of war victims and internally displaced persons in Europe since the Second World War. As of mid-1994 the Office of the United Nations High Commissioner for Refugees (UNHCR) estimated that the number of persons in need of protection inside the former Yugoslavia stood at 3.8 million, 2.7 million of whom were in Bosnia-Herzegovina and half a million in Croatia.[12] By the end of 1995 there were still 1.3 million displaced persons in the former Yugoslavia, 1.1 million of whom were in Bosnia-

Herzegovina.[13] In addition, several countries had provided temporary asylum to people from the former Yugoslavia, including Austria, Germany, Hungary, Sweden, Switzerland and Turkey.

44. In Africa, the increases in the migrant stock recorded during 1985-1990 are mainly attributable to the rising number of refugees in the region. In late 1995 there were an estimated 5.7 million refugees, the majority of whom were in Middle and Eastern Africa, particularly in Zaire (1.3 million) and Tanzania (0.9 million). Although the independence of Eritrea in 1993 and the elections in Mozambique enabled the repatriation of refugees (90,000 in Eritrea and 1.7 million in Mozambique), conflict continues to uproot and displace people. The crisis in Somalia, for instance, led to an estimated outflow of 1 million Somalis, about a quarter of whom have since returned, and to the repatriation of half a million Ethiopian refugees. The Sudan, which is reported to be hosting 840,000 refugees, is itself the source of 350,000 refugees, who have found asylum in the Central African Republic, Ethiopia, Kenya and Zaire.[14] In addition, upheavals in Burundi, Rwanda and Togo have led to extensive population outflows, especially in Rwanda, where the death of the president in April 1994 triggered ethnic violence that left thousands dead within a few weeks. Large numbers of Rwandese sought refuge in neighbouring countries, and the majority of the 300,000 Burundi refugees who had fled to Rwanda in 1993 were forced to leave. At the end of 1995 Zaire was hosting 1.1 million Rwandan refugees and the United Republic of Tanzania a further half a million. In addition, continued civil strife in Liberia uprooted thousands of people 300,000 of whom were hosted by Côte d'Ivoire and a further 400,000 by Guinea.

45. The repatriation of Afghan refugees from the Islamic Republic of Iran and Pakistan reduced their numbers from 6.2 million early in 1990 to 2.3 million by the end of 1995. But, continued fighting in Afghanistan has prevented full repatriation from taking place. In addition, an agreement reached in 1993 between the Governments of Bangladesh and Myanmar paved the way for the repatriation of about 250,000 citizens of Myanmar who sought refuge in Bangladesh during 1991-1992. However, by the end of 1995 there were still 51,000 refugees from Myanmar in Bangladesh.

Notes

[1] World Population Prospects: The 1996 Revision (United Nations publication, forthcoming.

[2] More developed regions include all regions of Europe, North America, Australia, New Zealand and Japan.

[3] Less developed regions include all regions of Africa, Asia (excluding Japan), and Latin America and the Caribbean, and the regions of Melanesia, Micronesia and Polynesia.

[4] Least developed countries, as defined by the General Assembly as of 1995, include 48 countries, of which 33 are in Africa, 9 in Asia, 1 in Latin America and 5 in Oceania. They are included in the less developed regions.

[5] These are Africa, Asia, Europe, Latin America and the Caribbean, North America, and Oceania.

[6] These are Eastern Africa, Middle Africa, Northern Africa, Southern Africa, Western Africa, Eastern Asia, South-Central Asia, South-East Asia, Western Asia, Eastern Europe, Northern Europe, Southern Europe, Western Europe, Caribbean, Central America, South America, Australia and New Zealand, Melanesia, Micronesia and Polynesia.

[7] World Bank, World Development Report 1993 (New York, Oxford University Press, 1993).

[8] UNICEF, Crisis in Mortality, Health and Nutrition, Economies in Transition Series, Regional Monitoring Report No. 2 (New York, August 1994).

[9] Mertens, Thierry E. and others, "Global estimates and epidemiology of HIV-1 infections and AIDS", AIDS 1995, vol. 9, supplement A (1995), pp. 5259-5272.

[10] Stalker, Peter, The Work of Strangers: A Survey of International Labour Migration (Geneva, ILO, 1994).

[11] Ibid.

[12] Report of the United Nations High Commissioner for Refugees (A/49/12).

[13] United Nations Office of the High Commissioner for Refugees, "Populations of concern to UNHCR: a statistical overview" (31 December 1995, Geneva).

[14] del Mundo, Ferrando, "The future of asylum in Africa", Refugees, No. 96 (1994), pp. 399-422.

Chapter III

HEALTH

1. This section will cover some global health issues that have come to the fore in recent years. These include changes in life expectancy, particularly in Africa and the transition economies where there has been a decline, an assessment of the burden that ill health places on the world, and the emergence of new infectious diseases, which is making global cooperation in health a priority and the costs of neglecting public health systems obvious.

A. Life expectancy

2. One measure of global health is life expectancy. According to recently revised World Population Prospects produced by the United Nations, life expectancy rose from 63.1 to 64.3 years between 1985-1990 and 1990-1995.[1] In Asia the increase was 1.9 years. Between 1975-1980 and 1990-1995 life expectancy rose six years in Asia, and nine years in South-East Asia. Even in North America and Europe further increases of about 3 years were seen in this period, up from the already high rates of more than 73 years.

3. As a result of better diets, more effective provision of medical care, particularly preventive care, and the discovery of new medicines, life expectancy should increase over time. Even in Japan, the country with the highest longevity, progress is still being recorded. Between 1980-1985 and 1990-1995 life expectancy increased overall by 2.6 years, from 76.9 to 79.5, with men increasing their life expectancy from 74.2 to 76.4 years, and women from 79.7 to 82.4 years. It is, then, of particular concern when countries with levels considerably below those recorded elsewhere show decreases in life expectancy. This situation has emerged most clearly in the past few years in sub-Saharan Africa and Central and Eastern Europe.

1. Life expectancy in Africa

4. Of the 15 African countries where life expectancies fell, only Kenya, Malawi, Uganda and Zambia showed a fall between 1980-1985 and 1985-1990 (table 3.1). Some of the other African countries registered improvements of more than one year in this period. In no case, however, had there been an increase of more than two years, which was the average improvement in Asia. Moreover, the life expectancies of 1985-1990 were low to begin with. Only in Botswana, Kenya and Zimbabwe was life expectancy above 55 years (the lowest of the developing country regions shown in table 3.1). In some countries the falls after 1990 were so sharp that they dragged rates of life expectancy below 1980-1985 levels.

Table 3.1 Selected countries showing decreases in life expectancy, 1980-1990 to 1990-1995

Country	*1980-85*	*1985-90*	*1990-95*
Africa			
Botswana	59.8	61.0	54.3
Burkina Faso	44.9	46.6	46.5
Burundi	47.8	48.3	44.6
Congo	50.8	52.2	51.5
Côte d'Ivoire	50.4	52.2	52.1
Kenya	55.8	55.7	54.1
Liberia	51.5	53.5	39.4
Malawi	45.0	44.9	42.0
Rwanda	46.3	46.7	22.6
Sierra Leone	35.5	36.9	34.4
Togo	50.5	52.3	51.0
Uganda	47.0	43.7	41.0
United Republic of Tanzania	50.8	51.0	50.4
Zambia	51.3	49.6	44.2
Zimbabwe	55.9	56.3	50.7
Asia			
Kazakstan	66.9	68.6	67.7
Tajikistan	65.9	68.5	67.2
Uzbekistan	66.6	67.7	67.5
Economies in transition			
Albania	70.4	72.0	70.9
Belarus	70.7	71.3	69.7
Bulgaria	71.4	71.6	71.2
Estonia	69.6	70.4	69.5
Hungary	69.1	69.4	69.0
Latvia	69.3	70.2	68.4
Lithuania	70.8	71.7	70.4
Russian Federation	67.6	69.2	66.5
Slovakia	70.6	71.0	70.8
Ukraine	69.4	70.4	68.8
Memo item:			
Czech Republic	70.7	71.4	72.0
Poland	70.9	70.9	71.1
Republic of Moldova	64.8	67.3	67.6
Romania	69.7	69.5	69.5

Source: United Nations, World Population Prospects: 1996 Revision, (New York, United Nations Publication, forthcoming).

5. Apart from war, which had a great effect on the figures for Liberia, Rwanda and Sierra Leone, AIDS[2] has been the main reason for declines in life expectancy. Because those infected are often young adults, not the elderly, countries are losing the contribution that they (and those caring for them) could make to economic activity. Also, countries have to make difficult choices about where to devote the scarce resources available for the prevention and treatment of diseases. Even though some drugs, such as Azidothy Midine: Zidovudine: retrovir (AZT), have been somewhat successful in treating (though not curing) patients with AIDS, their cost and that of the newer drugs being developed are beyond the means of the health services of poorer developing countries. These dilemmas are becoming more acute, as these countries will have to devote greater resources to other infectious diseases, which, it had been earlier thought, had been largely conquered.

2. Life expectancy in countries with economies in transition

6. In the countries with economies in transition the decline in life expectancy is starting from about 70 years, and cannot be so easily identified with a single illness, such as AIDS. The decline also took place after a plateau had been reached at a much earlier date than in other comparable countries (figure 3.1).

7. Figure 3.1 shows that Portugal and Spain now enjoy considerably greater longevity than the transition economies: 74.4 and 77.3 years, respectively, compared with 68.2 for Eastern Europe as a group. These two countries had seen steady increases in longevity, whereas the improvement ceased in the former Czechoslovakia and the former Union of Soviet Socialist Republics as early as 1960-1965 and in Romania in 1975-1980.

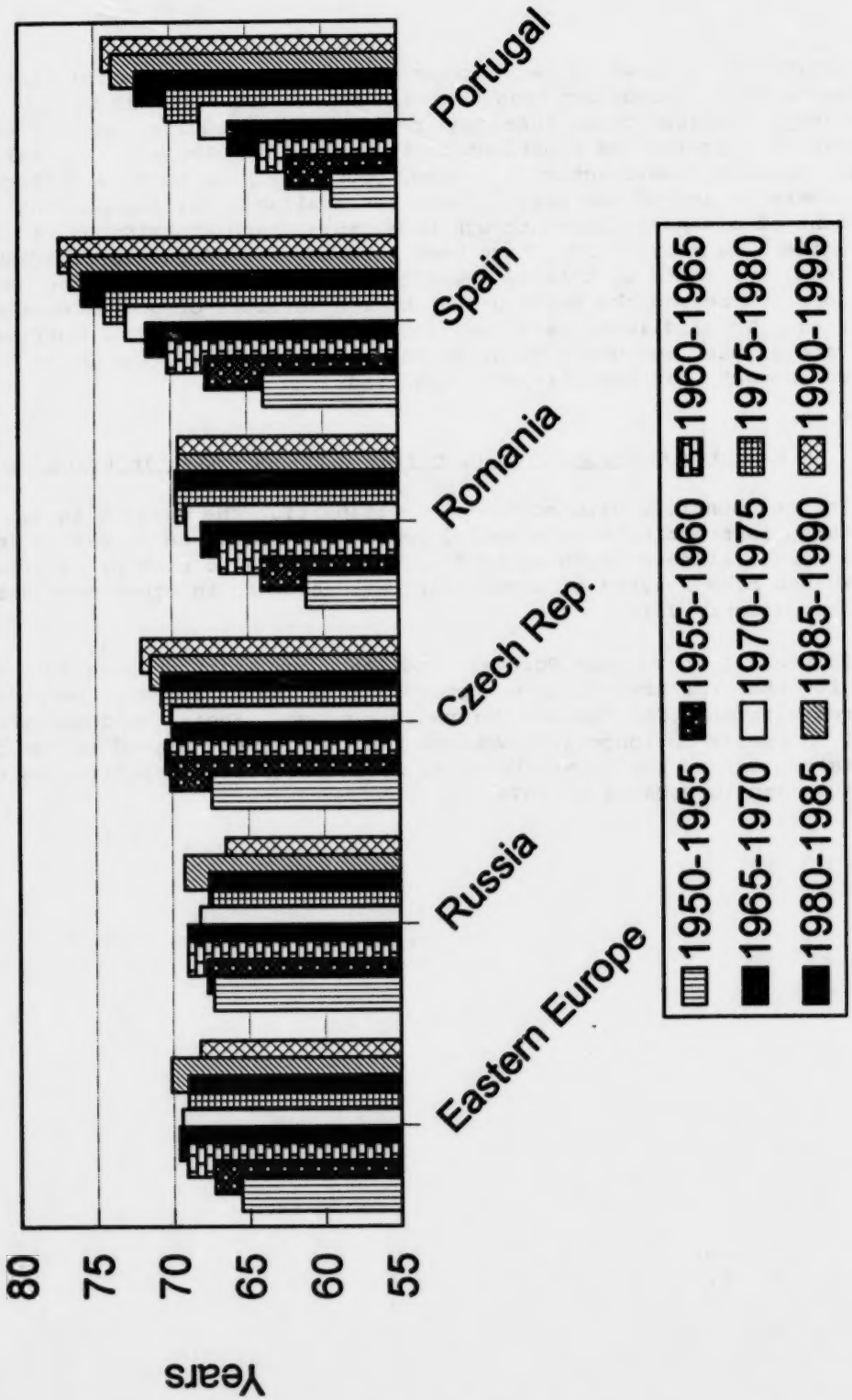
Figure 3.1 Life expectancy
Years
80
75
70
65
60
55
Portugal
Spain
Romania
Czech Rep.
Russia
Eastern Europe
1950-1955
1955-1960
1960-1965
1965-1970
1970-1975
1975-1980
1980-1985
1985-1990
1990-1995

B. Special features of the countries with economies in transition

8. These developments may at first appear surprising, since most of the Central and Eastern European transition economies had built extensive health infrastructures of medical and pharmaceutical personnel and delivered care in greater quantities than that in many developed market economies.[3] Unlimited and free medical care was a right guaranteed by the constitution and financed by the State budget. Structurally integrated networks of hospitals, clinics and other clinical facilities secured universal access to curative health services throughout the region. A highly structured system of hygiene and epidemiology stations formed an integrated network of public health services, which concentrated on the control of infectious, occupational and environment-related diseases. Regular check-ups in workplaces meant that individuals could not slip through the health care net by simply avoiding the doctor's office. Instead, health-threatening conditions were diagnosed and, presumably, treated.

9. This system initially increased life expectancy. Simultaneously, there was a swift decline in mortality from infectious, parasitic and respiratory diseases, injury, poisoning and other causes. Improvements in health conditions were particularly pronounced for infants and young children, brought about by a rapid expansion of basic and low-cost, highly effective, maternal and child health services.

10. However, the system's ability to function effectively was limited by numerous funding, management and incentive problems. Moreover, it had to struggle with some health problems that resulted largely from the deficiencies of the socio-economic system, including environmental pollution. With an insanitary and often hazardous working environment, and few incentives to extra effort, workers often found escape in alcohol, tobacco and even suicide. Furthermore, diets were often poor. The death rate for middle-aged men rose markedly, with heart disease, cardiovascular disease, lung cancer, alcohol-related traffic accidents and alcoholic cirrhosis of the liver leading the causes of death.[4]

11. Life expectancy improved in 1985-1990. In the Russian Federation, this improvement has been partly attributed to the anti-alcohol campaign of 1985-1987. Russian statistics show that deaths from the broad category, "accidents, poisoning and injuries", which are often alcohol-related, fell between 1985 and 1987, and rose sharply after 1991.[5] Another possible cause for the improvement in life expectancy in the countries of the former Soviet Union, although more difficult to document, was psychological relief. Glasnost and perestroika led to an optimistic belief that living conditions would change for the better, that greater freedoms would be enjoyed and that, after years of stagnation, economic activity would revive.

12. But after 1990 the health situation deteriorated sharply. The crude death rate rose between 1985-1990 and 1990-1995 from 11.0 per 1,000 to 12.6 per 1,000 in Eastern Europe (including the Russian Federation and Ukraine). For the entire period 1989-1993 the total increase in deaths over the 1989 figure was estimated to be 1.4 million.

13. In any event it would be difficult to provide a fully satisfactory explanation for this surprising and tragic development. Part of the problem lies in categorizing the cause of death: What caused a heart attack? How many accidents at work or on the road were due to alcohol? The situation varied across countries in transition. However, the shock and stress caused by the transition, in which individuals lost the stable support mechanisms that had guaranteed them an assured, if fairly low, standard of living, suggest a psychological explanation, in the same way as the earlier improvement in life expectancy can be partly attributed to optimism. Old certainties suddenly disappeared and living standards slipped for many people. What was more, many of the changes seemed inequitable: those suffering from the transition could see the conspicuous consumption of others who had suddenly, and many thought illegally, acquired the assets of the old system (or were benefiting, perhaps also illegally, from opportunities being generated in the new situation).

14. Yet, in some transition countries, including the Czech Republic and Poland, there was no decline in life expectancy. The causal relationships between transition, stress and early death are clearly complicated. Account must be taken of how the transition affected different groups in society, what coping mechanisms they developed and what support, psychological and otherwise, they received.

15. The differences among countries show that it is difficult to generalize about the relationship between stress and transition. One statistic that would be expected to reflect stress is suicide. Suicide rates have been high, but have varied considerably: the rates were higher in Lithuania (more than 70 per 100,000 men) and the Russian Federation (66) than in Ukraine (38).[6] The rate for men in Poland (24) was half that of Hungary (58). Moreover, the overall rate for Poland (14) was considerably less than that of many developed countries, including Finland (30), France (20), Germany (17) and Japan (16), and the rate for women (4.4) lower than that of almost any developed country.

16. A predominant proportion of the increase in deaths, ranging from 32 to 80 per cent, is explained by heart and circulatory diseases, including strokes, ischaemic heart disease and other cardiovascular diseases. "External causes" of death including poisoning, accidents, suicide and homicide explain a sizeable part of the increase in the crude death rate in the Russian Federation, Ukraine and, to a lesser degree, Hungary. Cancer accounts for an important, but not a dominant part of the increase in the crude death rate.

17. The relaxation of hygiene and quality controls that took place during the transition in some countries has increased deaths due to food and alcohol poisoning.[7] Moreover, there was an increase in unauthorized sales of alcoholic home-brews, which heightened the risk of alcohol poisoning, as well as alcohol psychosis, cirrhosis of the liver and heart disease. Official numbers of registered alcoholics have recently shown a declining trend in most transition economies, though this decline is due to weakening controls and to fewer resources being available for treatment centres and health monitoring units.[8]

18. After more than 40 years of decline, mortality due to infectious and parasitic diseases tuberculosis, diphtheria, hepatitis, viral meningitis, which, it was thought, had been eradicated from the European continent escalated again

in transition economies. The re-emergence of these infectious diseases has been attributed to the breakdown of the previous health care system and to the population's new mobility, those from the remoter parts of a country moved to the cities in search of employment, thereby evading the health monitoring services.

19. The picture in the transition economies is further complicated by the fact that other indicators have continued to improve, indicators which would be expected to deteriorate if the health system itself deteriorated. This is the case with the provision of health services to the young. In most countries infant mortality rates have continued to decline.[9] Indeed, part of the explanation for the increase in Poland's life expectancy has been a significant decline in infant mortality.

20. Because of the problems with the previous health care system, reform proposals were formulated early in the transition. So far, however, these reforms have progressed little, partly because of the budgetary crisis. Budgetary pressures forced transition economies to place greater emphasis allocating resources efficiently among levels of care. In the new model the principal health provider is the family doctor, a general practitioner who is selected by patients.[10] Since these doctors will act as filters for specialized care, this shift should allow important cost reductions, as well as greater flexibility and efficiency at both primary and secondary levels.

21. Health administrations in transition economies hope to introduce cost-recovery measures and incentives for medical staff through performance-related compensation schemes within the public sector. Per capita payments for family doctors and for specializing in particular ailments, as practised already in Hungary, may provide better incentives and resource allocation without increasing health expenditures of the central budget.

22. Another means of alleviating the acute financial crisis affecting health institutions has patients bearing a rising share of health costs. The introduction of fees, combined with sharp increases in the prices of pharmaceuticals and other medical supplies, could adversely affect access to health care, especially for low-income patients.

23. Most transition economies are aiming to shift health care financing away from the State budget through either compulsory work-related health insurance, financed by employer and employee contributions; the creation of an off-budget account, funded by earmarked taxes; or the creation of separate health (and pension) accounts, financed by employer and employee contributions.[11] Still another method of reform in Central and Eastern Europe has been to privatize parts of the health care system.

C. The global burden of health

24. In all countries policy makers have an opportunity to redesign their health services and health financing systems and to show citizens how to protect their own health. Yet the transition economies and other countries suffering from economic difficulties run the risk that lower standards of living, a weaker

commitment by Governments to maintaining essential services, and restrictions in public expenditures on health care will weaken the health sector's role as a critical link in the social safety net. Continued underfunding of immunization programmes or maternal and child clinics could worsen the already high infant and maternal mortality rates in many developing and transition economies. Similar considerations apply even in wealthy countries, where private provision of health services is encouraged. The risk is that essential parts of the health delivery and maintenance system will be underfunded.

25. Protecting the nation's health is one of the primary duties of government, and the physical health of a nation is inextricably linked to its economic health. Illness limits people's autonomy, reduces their participation in employment and increases their dependence on health services. Thus, poor health negatively affects labour mobility, productivity and public spending. Rising demand for health services and increasing costs of medicines could trigger a vicious cycle of upward pressure on public spending, poor economic performance and deteriorating standards of living which would in turn jeopardize other measures taken to improve health.

26. In order to choose the most appropriate and cost-effective steps to improve the nation's health, policy makers must have information on the extent and causes of ill health. Figures such as life expectancy provide a broad picture of the years of productive activity that are denied to much of the world's population because of ill health. Yet to determine which actions health administrators should take, it is also important to understand why death occurred, the importance of different causes of death, which diseases lead to disability and the risk factors that can lead to premature death or disability. It is doubly important to know how communicable diseases are spread. Such issues have been highlighted by the AIDS epidemic, which was treated too lightly at first perhaps because in developed countries the disease affected what was thought to be a small part of the population: homosexual men and intravenous drug users. Yet its subsequent, rapid spread through tainted blood and heterosexual activity increased public concern, leading to actions that, if taken earlier, would have saved many lives.

27. The Global Burden of Disease and Injury Series, published by the Harvard School of Public Health on behalf of WHO and the World Bank, has attempted to provide information to guide policy makers. A preliminary assessment of its results was given in the World Development Report 1993 and a revised version was published in 1993.

28. The report showed how, in the age groups for which comparisons are meaningful, the health situation was worse in the developing than in developed countries. The death rates for children under 5 years of age, for those between the ages of 5 and 14, and people of working age (between 15 and 60), were often many times higher in the developing countries than in the developed market economies (see table 3.2). (After the age of 60 it is more difficult to draw conclusions from the figures for death rates.) The serious health situation in the transition economies of Europe was highlighted by the fact that death rates for children between the ages of 5 and 15 were higher than in any of the developing regions except for sub-Saharan Africa. The picture for women in developing countries was considerably better: death rates were unexpectedly

Table 3.2 Death rates in 1990
(per 100,000)

Age group (years)	*Male*	*Female*	*Total*
Developed economies			
0-4	228	181	205
5-14	26	17	22
15-59	307	150	229
60+	4,653	3,592	4,035
European economies in transition			
0-4	479	366	424
5-14	61	36	49
15-59	657	252	453
60+	5,472	4,287	4,720
India			
0-4	2,676	2,911	2,790
5-14	252	309	279
15-59	507	456	483
60+	5,912	5,207	5,565
China			
0-4	838	975	905
5-14	89	70	80
15-59	362	266	316
60+	5,851	4,843	5,334
Other Asia and Islands			
0-4	2,058	1,704	1,885
5-14	274	214	244
15-59	438	319	379
60+	5,237	4,335	4,760
Sub-Saharan Africa			
0-4	4,568	3,957	4,264
5-14	548	508	528
15-59	924	756	839
60+	5,923	5,439	5,658
Latin America and the Caribbean			
0-4	1,402	1,105	1,256
5-14	140	109	124
15-59	434	299	366
60+	4,422	3,646	4,002
Middle Eastern crescent			
0-4	2,320	2,285	2,303
5-14	242	227	235
15-59	426	330	380
60+	5,175	4,378	4,752

higher for men than for women in all age groups and for all regions, with the exception of China for children under 5 and India for children under 14. The large difference between the death rates for children under 5 and under 15 in the developed and the developing countries, compared with the difference in death rates for the population aged 15 to 60, points to how many children are dying unnecessarily in developing countries. Adequate hospital care, particularly at birth, hygiene and nutrition are decisive in ensuring a child's survival.

29. These avoidable deaths were further analysed by the report, which disaggregates deaths into three broad categories:

(a) Group 1: Communicable, maternal, conditions arising during the perinatal period, and nutritional deficiencies;

(b) Group 2: Non-communicable diseases, such as cancer, ischaemic heart disease and cerebrovascular disease (stroke);

(c) Group 3: Injuries.

30. The reason for this breakdown is that Group 1 diseases are largely avoidable. Of the 50.5 million people who died in 1990, 39.5 died in developing countries and 10.9 in developed and transition countries (see table 3.3). Group 1 diseases accounted for 17.3 million of the 50.5 million deaths, with 16.5 million occurring in the developing countries. Thus 42 per cent of deaths in the developing countries were caused by Group 1 diseases.

31. In the developed countries the majority of deaths, 86 per cent were due to non-communicable diseases (Group 2) and only 6 per cent to Group 1 diseases. Injuries (Group 3) accounted for the remainder of deaths, about 10 per cent in both developing and developed countries.

32. These broad conclusions suggest that as countries become richer, they are better able to control infectious diseases, and thus those people who die are older and succumb to non-communicable diseases. Indeed, only in sub-Saharan Africa and India did Group 1 deaths predominate. In the other developing country areas Group 2 diseases accounted for more deaths than Group 1 diseases. Not only do people in the developed countries live longer, but the part of their lives that is affected by illness is much shorter. At all stages of life, people in developing countries are more exposed to illness than those in developed countries. The probability of dying before the age of 70 from a non-communicable disease (Group 2) was higher in sub-Saharan Africa and India than in the market economies.

Table 3.3 Distribution of deaths by broad cause group and region, 1990

	Percentage of regional total			*Regional total (thousands)*
	Group I[a]	*Group II*[b]	*Group III*[c]	
World	34.2	55.8	10.1	50,467
Developed and transition economies:	6.1	86.2	7.6	10,912
Developed economies	6.4	87.4	6.3	7,121
Transition economies of Europe[d]	5.6	84.1	10.3	3,791
Developing:	41.9	47.4	10.7	39,554
India	50.9	40.4	8.6	9,371
China	15.8	72.7	11.5	8,885
Latin American and the Caribbean	31.3	55.7	12.9	3,009
Middle East crescent[e]	42.7	47.4	9.9	4,553
Other Asia and Islands	39.6	50.3	10.1	5,534
Sub-Saharan Africa	64.8	22.7	12.5	8,202

Source: Christopher Murray and Alan Lopez, eds., *The Global Burden of Disease*, Global burden of disease and injury series: v.1, Harvard School of Public Health, World Bank, and World Health Organization (1996), p. 176.

[a] Communicable, maternal, perinatal and nutritional conditions.

[b] Non-communicable diseases.

[c] Injuries.

[d] Central and Eastern European transition economies, Baltic States, Belarus, Ukraine and Russian Federation.

[e] North African Arab countries, Afghanistan, Cyprus, Islamic Republic of Iran, Pakistan, Turkey and transition economies of the Caucasus and Central Asia.

33. The fact that different diseases affect people at different stages of their life, with some tending to strike late in life, necessitates that health administrators evaluate losses from death in terms of the unnecessary curtailing of life: in years of life lost (YLL). This measure sums up the number of years taken by a particular illness, a number that is considerably greater than the number of deaths, about 900 million years (table 3.4). Because non-communicable diseases affect mainly older people, although they accounted for 56 per cent of deaths, they accounted for only 31 per cent of YLL. Injuries, which mainly affect young people, account for a larger percentage of YLL 15 per cent than of deaths.

Table 3.4 Years of life lost by broad cause group, 1990

	Percentage of regional total			*Regional total (in millions)*
	Group I[a]	*Group II*[b]	*Group III*[c]	
World	54.1	31.3	14.6	906.5
Developed and transition economies:				
Developed economies	8.8	75.3	15.9	49.7
Transition economies of Europe[d]	9.4	67.6	23.0	35.9
Developing:				
India	66.4	22.6	11.0	200.1
China	28.3	51.5	20.2	117.9
Latin America and the Caribbean	47.5	34.0	18.5	56.2
Middle East Crescent[e]	57.8	29.7	12.6	105.2
Other Asia and Islands	53.6	32.6	13.8	114.6
Sub-Saharan Africa	73.9	12.4	13.7	226.9

Source: Christopher Murray and Alan Lopez, eds., *The Global Burden of Disease*, Global burden of disease and injury series: v.1, Harvard School of Public Health, World Bank, and World Health Organization (1996), p. 176.

[a] Communicable, maternal, perinatal and nutritional conditions.

[b] Non-communicable diseases.

[c] Injuries.

[d] Central and Eastern European transition economies, Baltic States, Belarus, Ukraine and Russian Federation.

[e] North African Arab countries, Afghanistan, Cyprus, Islamic Republic of Iran, Pakistan, Turkey and transition economies of the Caucasus and Central Asia.

34. In developing countries Group 1 causes such as lower respiratory infections (pneumonia), diarrhoeal diseases, conditions arising during the perinatal peroid, tuberculosis, measles and malaria accounted for a considerably larger proportion of YLL than of actual deaths. Thus although, non-communicable diseases claim more lives than Group 1 diseases in almost all developing countries, the significance of Group 1 diseases in terms of lost years of life is much greater.

35. Other information produced by the study included years lived with a disability condition (YLD). Even if a particular disease does not cause death, it still reduces the chances for an active and productive life. Similar to YLL, YLD must be based on estimates in this case of the number of people with the

particular disability and for how long they live with it (table 3.5). YLD must also include a weighting for the severity of the disability. For instance, the disability weight for asthma was set at 10 per cent if untreated and 6 per cent if treated, whereas the weights for active psychosis and dementia were higher than 70 per cent. The estimate for the YLD in 1990 was 473 million. In comparison, the world's population was about 5,300 million in that year.

36. The research showed that a completely different set of diseases led to losses through disability rather than through death. Psychiatric and neurological conditions unipolar major depression, alcohol use, bipolar affective disorder (manic depression), schizophrenia and obsessive-compulsive disorder accounted for 28 per cent of all YLD, for only 1.4 per cent of all deaths and 1.1 per cent of YLL. These conditions were the most important in causing diseases in all regions except sub-Saharan Africa, where they accounted for 16 per cent of YLD. However, they were less important causes of disability in the developing than in the developed countries. Also, tuberculosis, iron-deficiency anaemias, obstructed labour and maternal sepsis were much greater causes of disability in the developing than in the developed economies.

37. The calculations for YLD also showed that 18 per cent of conditions began in early childhood and almost half in young adulthood (between 15 and 44 years). Only 10 per cent began after the age of 60. Yet the proportion of life lived with a disability actually fell with longevity: in the developed countries, which have greater life expectancies than the developing countries, the proportion of years lived with disability was about 20 per cent, compared with more than 30 per cent in most of the developing countries and more than 40 per cent in sub-Saharan Africa.

38. The sum of YLL and YLD constitutes the total burden of disease. The measure, called the Disability-Adjusted Life Year (DALY), expresses the years of life lost to premature death and the years lived with a disability. The total was approximately 1.4 billion for 1990 (see table 3.6). Again, a very different pattern emerges for the developed and transition countries than for the developing countries. To help providers of health services, the study attempted to calculate the percentage of this total contributed by 10 specific "risk" factors (table 3.7): malnutrition (15.9 per cent); poor water supply, sanitation and personal and domestic hygiene (6.8 per cent); unsafe sex (3.5 per cent); alcohol use (3.5 per cent); occupation (that is, exposure to hazards through work) (2.7 per cent); tobacco use (2.6 per cent); hypertension (1.4 per cent); physical inactivity (1.0 per cent); illicit drug use (0.6 per cent); and air pollution (0.5 per cent). These 10 factors account for nearly 40 per cent of the global, burden of disease. Moreover, the two most important risk factors, malnutrition and poor water supply, sanitation and hygiene, which account for almost a quarter of the burden are largely confined to the developing countries, and especially to the poorest countries. Malnutrition was responsible for 33 per cent of the total disease burden in sub-Saharan Africa and 22 per cent in India. Largely because of the AIDS epidemic, the burden of unsafe sex was considerably higher in sub-Saharan Africa than in other regions. In the European transition economies, air pollution was six times more important in causing disability than in the developed economies.

Table 3.5 Percentage distribution of years lived with disability for specific causes, 1990

Group/Cause	Developed and transition economies of Europe	Developed economies	Transition economies of Europe	Developing countries	India	China	Latin America and the Caribbean	Middle East Crescent	Other Asia and Islands	sub-Saharan Africa	World
Group I.	6.3	5.5	7.8	27.8	33.6	18.9	19.0	24.6	28.5	39.3	24.4
Infectious and parasitic diseases	2.7	2.6	3.0	12.3	14.3	6.4	9.7	6.4	12.6	22.4	10.7
Respiratory infections	0.4	0.3	0.4	1.4	1.4	1.4	1.0	1.8	1.4	1.3	1.2
Maternal conditions	1.1	0.6	1.9	4.0	4.7	1.9	2.7	5.0	4.0	5.8	3.5
Conditions arising during the perinatal period	0.5	0.5	0.5	2.3	3.5	1.1	1.6	2.9	1.7	3.2	2.0
Nutritional deficiencies	1.7	1.5	2.0	7.9	9.8	8.2	4.1	8.6	8.7	6.6	6.9
Group II.	84.2	86.7	79.5	54.8	43.7	66.9	67.3	61.5	56.1	39.8	59.5
Neuro-psychiatric conditions	43.9	47.2	37.6	25.5	20.9	30.7	34.6	25.4	28.5	16.3	28.5
Cardiovascular diseases	6.5	6.2	7.1	3.0	3.6	3.5	2.4	3.8	2.9	1.6	3.6
Group III.	9.5	7.9	12.7	17.4	22.8	14.2	13.6	13.9	15.4	20.9	16.1
Unintentional injuries	8.3	7.1	10.7	15.4	22.4	12.9	12.3	10.0	14.6	16.3	14.3
Intentional injuries	1.2	0.8	2.0	1.9	0.4	1.3	1.4	3.9	0.8	4.6	1.8

Source: Christopher Murray and Alan Lopez, eds., The Global Burden of Disease, Global burden of disease and injury series: v.1, Harvard School of Public Health, World Bank, and World Health Organization (1996), p. 234.

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Table 3.6 Percentage distribution of disability-adjusted life years among specific causes, 1990

Group/Cause	Developed and transition economies of Europe	Developed economies	Transition economies of Europe	Developing countries	India	China	Latin America and the Caribbean	Middle East Crescent	Other Asia and Islands	sub-Saharan Africa	World
Group I.	7.8	7.1	8.8	48.7	56.4	24.2	35.3	47.7	44.7	65.9	43.9
Infectious and parasitic diseases	2.7	2.8	2.7	25.6	28.9	7.5	17.6	20.2	22.3	42.5	22.9
Respiratory infections	1.6	1.4	2.0	9.4	11.9	5.9	4.9	10.7	8.7	10.5	8.5
Maternal conditions	0.6	0.3	0.9	2.4	2.6	1.3	1.7	2.4	2.3	3.2	2.2
Conditions arising during the perinatal period	1.9	1.8	2.2	7.3	8.8	4.9	7.4	9.7	6.9	6.5	6.7
Nutritional deficiencies	0.9	0.9	1.0	4.1	4.2	4.6	3.7	4.7	4.5	3.2	3.7
Group II.	77.7	81.0	72.6	36.1	29.0	58.2	48.2	39.3	40.9	18.8	40.9
Neuro-psychiatric conditions	22.0	25.1	17.2	9.0	7.0	14.2	15.9	8.7	10.8	4.0	10.5
Cardiovascular diseases	20.4	18.6	23.2	8.3	8.2	11.0	8.0	11.1	10.1	3.9	9.7
Group III.	14.5	11.9	18.7	15.2	14.6	17.6	16.4	13.0	14.4	15.4	15.1
Unintentional injuries	10.3	8.7	12.9	11.04	13.0	12.9	11.9	6.8	12.1	9.3	11.0
Intentional injuries	4.2	3.2	5.8	4.1	1.5	4.7	4.5	6.2	2.3	6.0	4.1

Source: Christopher Murray and Alan Lopez, eds., The Global Burden of Disease, Global burden of disease and injury series: v.1, Harvard School of Public Health, World Bank, and World Health Organization (1996), p. 261.

Table 3.7 Percentages of disability-adjusted life years attributable to different risk factors, 1990

Risk factor	World	Developed and transition economies	Developed economies	Transition economies of Europe	Developing countries	India	China	Latin America and Caribbean	Middle East Crescent	Other Asia and islands	sub Saharan Africa
Malnutrition	15.9	0.0	0.0	0.0	18.0	22.4	5.3	5.1	11.0	14.5	32.7
Poor water supply and personal and domestic hygiene	6.8	0.1	0.1	0.2	7.6	9.5	2.0	5.3	8.8	7.4	10.1
Unsafe sex	3.5	2.1	2.0	2.2	3.7	4.0	0.4	3.7	1.5	4.4	6.5
Alcohol	3.5	9.6	10.3	8.3	2.7	1.6	2.3	9.7	0.4	2.8	2.6
Occupation	2.7	4.6	5.0	3.8	2.5	2.0	3.9	3.7	2.6	2.8	1.3
Tobacco	2.6	12.1	11.7	12.5	1.4	0.6	3.9	1.4	1.2	1.5	0.4
Hypertension	1.4	4.7	3.9	5.9	0.9	0.9	1.0	1.8	1.7	0.3	0.6
Physical inactivity	1.0	4.0	4.8	2.8	0.6	1.0	0.8	1.0	0.8	0.3	0.0
Illicit drugs	0.6	1.9	2.3	1.3	0.4	0.1	0.3	1.6	0.7	0.7	0.2
Air pollution	0.5	1.5	0.5	3.1	0.4	0.5	0.4	0.5	0.5	0.4	0.2

Source: Christopher Murray and Alan Lopez, eds., The Global Burden of Disease, Global burden of disease and injury series: v.1, Harvard School of Public Health, World Bank, and World Health Organization (1996), pp. 311-315.

39. The Global Burden of Health can help countries to direct their resources to combat those illnesses that pose the greatest threat to their populations. In the case of the transition economies, for instance, the burden of alcohol, tobacco and air pollution is especially strong. In many developing countries interventions to provide proper nutrition and safe water would make major contributions to health. The study has also shown that many conditions that might not cause death should be taken more seriously because of their contribution to disability. This was especially relevant to psychological illnesses.

40. Finally, the developing countries have an opportunity, by examining risk factors in the developed and transition economies, to see how they can increase the health of their population in the future as they become richer. The two largest risk factors in both the developed and transition economies are tobacco and alcohol. A serious risk factor in the transition economies was, as mentioned earlier, air pollution. Action at the present time to counter pollution, tobacco use and alcohol abuse could help the developing countries to reduce their future disease burden.

D. New and infectious diseases

41. Even before the age of commercial air travel, diseases could travel quickly. Swine flu in 1918-1919 managed to circumnavigate the world five times in 18 months, killing 22 million people, 500,000 in the United States. Today, half a billion passengers board airline flights every year.[12] This is a time of great movement: people move from rural areas to cities, refugees cross international boundaries, truck drivers can cover great distances. In many cases these movements can facilitate the spread of disease, as when poor rural people are congregated in cities that lack adequate sewer systems and safe water. The task of public health authorities in monitoring health conditions, vaccinating the population and preventing outbreaks of known and treatable diseases would itself be daunting in these circumstances. Sometimes, economic crisis has broken down the health delivery system and has led to the re-emergence of diseases that were previously thought to be conquered. Because immunization against diphtheria was not maintained in the former Soviet Union, there was an outbreak in 1990 in the Russian Federation, which subsequently spread to 15 countries.[13] Only now does it appear to be stabilizing.

42. Yet, as the AIDS epidemic has shown, diseases are emerging that prove incurable by known medicines. In the past 20 years about 30 new diseases have emerged. Emerging diseases are those whose incidence in humans has increased in the past 20 years, or threatens to do so in the near future, newly appearing infections or infections which have spread to new geographical areas, and diseases which were easily controlled by chemotherapy and antibiotics, but which have developed antimicrobial resistance. In addition to AIDS, emerging diseases include drug-resistant malaria, tuberculosis, multidrug-resistant pneumococcal pneumonia, cholera (both classic strains and new varieties), E-coli, dengue and its severe complications, cryptosporidiosis, and hantavirus pulmonary syndrome. In 1995 the world saw outbreaks of cholera, diphtheria, plague and Ebola haemorrhagic fever. This last disease was confined to a relatively small corner of Zaire because of a rapid national and international response, with staff from WHO headquarters in Geneva and the regional office in Brazzaville, Congo, arriving at the site of the epidemic within 24 hours of notification. Diagnosis of the disease was confirmed at the WHO Collaborating Centre on Arboviruses and Viral Haemorrhagic Fevers at the Centers for Disease Control and Prevention in Atlanta, Georgia, United States. This prompt action confirmed the importance of strengthening national, regional and global efforts to detect and contain similar threats from emerging diseases.

Notes

[1] World Population Prospects: The 1996 Revision (United Nations sales publication: forthcoming).

[2] It should be stressed that these figures for life expectancy are only estimates and are subject to continual revision, as countries adopt more effective measures to prevent the spread of AIDS.

[3] For instance, the population per doctor was 210 in the Russian Federation and 450 in Eastern Europe, whereas it was 440 in the OECD countries (United Nations Development Programme, Human Development Report 1996) (New York, UNDP, 1996), p. 191.

[4] For instance, in 1985-1990 the life expectancy of women in the Russian Federation at 74.3 years was 10 years above that of men at 64.3.

[5] State Committee of the Russian Federation on Statistics, The Demographic Yearbook of Russia (Moscow, 1995), p. 474.

[6] Figures from WHO quoted in The Economist (5 October 1996), p. 50.

[7] In Romania, for example, the incidence of trichinosis caused by parasites in pork has risen in parallel with the development of the private unregulated food market. It more than doubled between 1989 and 1993 from 4.1 to 9.4 per 1,000. See UNICEF, International Child Development Centre, Regional Monitoring Report, No. 2 (August 1994), p. 47.

[8] A telling example is offered by Hungary, where time series for the transition period clearly indicate that the decline in alcohol consumption and in the number of registered alcoholics masks a staggering increase in excessive alcohol consumption: the estimated number of alcohol-addicted persons estimated using the Jelinek formula based on the number of deaths by liver cirrhosis increased from 588,000 in 1990 to 1.048 million in 1994. The number of deaths from liver cirrhosis increased from 4,080 in 1990 to 7,277 in 1994. See, Központi Statisztikai Hivatal, Magyar statisztikai évkönyv/Hungarian statistical yearbook, 1994 (Budapest, 1995), p. 309.

[9] A comparison of health statistics before and after the transition is complicated by the fact that deaths in the Soviet Union were generally underregistered and that different definitions were used.

[10] In the previous system emphasis was placed on expensive, hospital-based specialized care. The new system is actively being developed by Hungary and the Russian Federation.

[11] This third reform has been implemented in Hungary by separating health and pension payments from the central budget and setting up the Health Fund and the Social Security Fund.

[12] Garrett, Laurie, "The return of infectious diseases", Foreign Affairs, January/February (1996), p. 69.

[13] World Health Organization, The World Health Report 1996: Fighting Disease, Fostering Development (World Health Organization, Geneva, 1996), p. 26.

Chapter IV

HUNGER AND MALNUTRITION

1. People in virtually every country suffer from hunger and malnutrition, although the extent and the pattern differ substantially from country to country and from region to region. In this section some general trends and policy issues regarding hunger and malnutrition will be presented. The discussion will, however, mainly refer to the developing regions, where hunger is most prevalent. In fact, estimates of the total number of undernourished in the developing world exceed the total population of the developed world. That the problem of hunger and malnutrition is urgent is highlighted by the fact that the Food and Agriculture Organization of the United Nations (FAO) Conference at its 28th Session in October 1995 called for the convening of a World Food Summit, which was held in Rome in November 1996. This Summit renewed the world's commitment to eradicating hunger and malnutrition, and adopted a plan of action for all concerned actors.[1]

A. How many people are malnourished?

2. Malnutrition refers to a pathological state resulting from too little (or too much) consumption of essential nutrients. There are different aspects of malnutrition, some of which can be measured. But estimation of the number of people who are malnourished is marred by conceptual and measurement problems, as well as by the transient nature of malnutrition. Still, the lack of precise data on the number affected should not preclude policy action, as any casual observation in the developing world confirms the severity of the problem.

3. One way to examine the nutrition situation is to look at the food supply available for consumption (although not necessarily consumed). A country's food supply is equal to its food production and imports minus food exports. When this figure is adjusted for changes in stocks, waste food used for seed and animal feed, and industrial non-food uses, the result is the food supply available for consumption.[2]

4. In nearly all regions of the world dietary energy supplies have increased since the early 1970s (table 4.1). The exceptions are Eastern Europe and sub-Saharan Africa. However, the increase since 1979-1981 has been negligible in Latin America, and South Asia was the only developing region that recorded an increase in the growth rate of per capita energy supply (ignoring the fact that the negative growth rate in sub-Saharan Africa improved slightly). The decline in energy supplies in sub-Saharan Africa is particularly distressing, as this region also has the lowest level of energy supplies.

Table 4.1 Per capita dietary energy supplies (kilocalories, three-year average)

Region	Energy supply			Average annual growth rate	
	1969-1971	1979-1981	1990-1992	1969-1971 to 1979-1981	1979-1981 to 1990-1992
World	2,440	2,580	2,720	0.5	0.5
Developed countries	3,190	3,280	3,350	0.3	0.2
Industrialized countries	3,120	3,220	3,410	0.3	0.5
Transition economies	3,330	3,400	3,230	0.2	-0.5
Developing countries	2,140	2,330	2,520	0.9	0.7
Latin America and the Caribbean	2,510	2,720	2,740	0.8	0.0
Sub-Saharan Africa	2,140	2,080	2,040	-0.3	-0.2
Near East and North Africa	2,380	2,850	2,960	1.8	0.3
South Asia	2,060	2,070	2,290	0.0	0.9
East and South-east Asia	2,060	2,370	2,680	1.4	1.1
Least developed countries	2,060	2,040	2040	-0.1	0.0

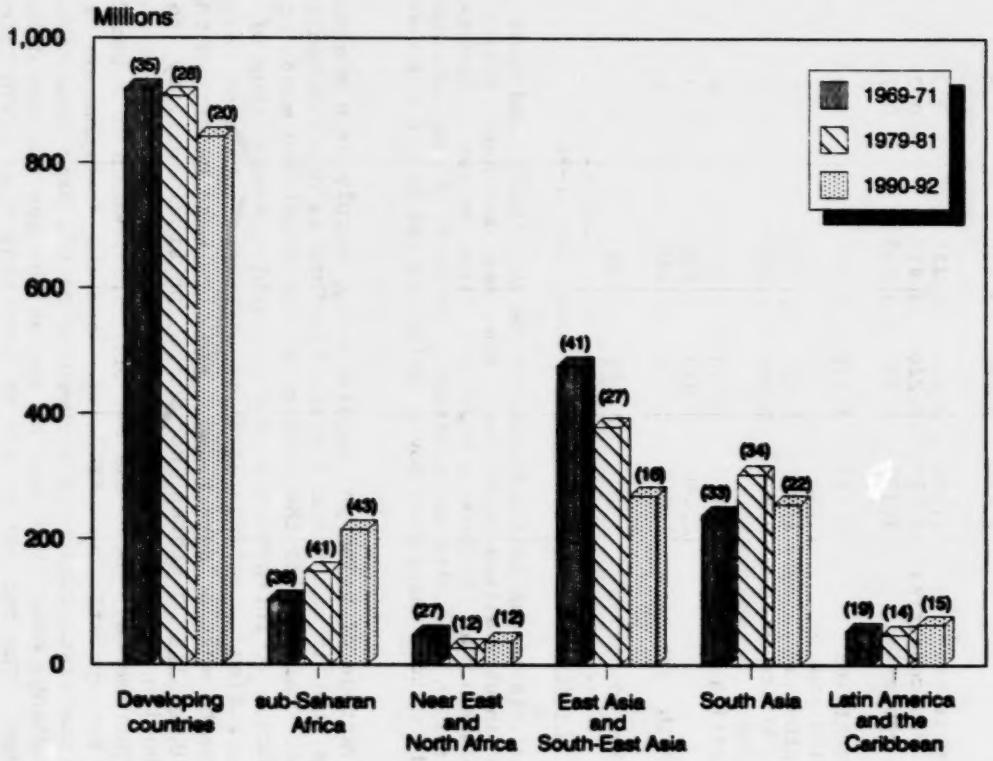
Source: FAO, The Sixth World Food Survey, (Rome, FAO, 1996).

Note: Regional classifications are those of the FAO. Israel and South Africa are classified as industrialized countries. Near East and North Africa includes, inter alia, Afghanistan, the Islamic Republic of Iran and Turkey, but excludes the Sudan. Transition economies as a category is part of the developed country groupings and includes the former Soviet Union and the former Yugoslavia.

5. One disadvantage of using per capita energy supply as a measure of malnutrition is that it assumes the available food is distributed in proportion to requirements. Calculating the number of undernourished makes up for this disadvantage though it introduces some far-reaching assumptions of its own. Because undernutrition is defined as an insufficient intake of calories, minimum energy requirements must be determined. And they must be set so that they account for, inter alia, diseases, body size, physical activity, age and sex. Next, a distribution is needed to calculate the number of people who fall below the minimum requirements.[3] Both the cut-off point, which is a weighted average of the age and sex-specific cut-off points, and the distribution vary across countries, but the distribution is assumed to be the same over time. The cut-off points change over time only as far as the age and sex distribution changes over time. The cut-off varied in 1990-1992 from 1,790 kilocalories per capita per day in South Asia to 1,880 in East and South-East Asia.

6. Figure 4.1 shows that in the developing world the absolute number and the proportion of undernourished people fell between 1969-1971 and 1990-1992.[4] The improvements were particularly encouraging in East and South-East Asia and South Asia, where the number of undernourished declined by about 200 million. In 56 developing countries (out of 98) the percentage of undernourished fell between 1969-1971 and 1990-1992. In 39 countries this percentage increased, and it was stable in 3 countries.

Figure 4.1. Prevalence of undernutrition in developing regions, 1969-71, 1979-81 and 1990-92



Source: FAO, The Sixth World Food Survey (Rome, FAO, 1996).
Note: Numbers in parentheses are percentages of total population.

/...

7. Still about 840 million people in the developing countries were undernourished in the early 1990s (down from 918 million in 1969-1971). East and South-East Asia accounted for the highest number of undernourished people, as before, despite this significant progress. The situation was worst in sub-Saharan Africa as both the absolute number and the percentage of undernourished increased since 1969-1971. In sub-Saharan Africa the number of undernourished doubled between 1969-1971 and 1990-1992, affecting 43 per cent of the total population in 1990-1992. In Latin America and the Caribbean and in the Near East and North Africa, the number of undernourished increased as well, although as a percentage of the total population there was little change.

1. Children

8. Another way to measure malnutrition is to use anthropometry, that is, measurements of the human body. Anthropometric measures are more directly related to food consumption than the methods described above.[5] Children's body measurements in particular are sensitive to changes in the intake of protein and calories, in addition to diseases. The most commonly used indicator is the percentage of children whose weight-for-age is more than two standard deviations below the median value of the reference pattern.[6] This percentage indicates the extent of severe and moderate malnutrition, while a cut-off point of three standard deviations represents severe malnutrition only.

9. The percentage of malnourished children continued to decrease between 1985 and 1995 in China, South-East Asia, and Latin America and the Caribbean, although the decrease was small and the percentage of children malnourished is still high in South-East Asia (table 4.2). The total number of malnourished children also fell in these regions, except in Middle America and the Caribbean, where the number of malnourished children remained stagnant.

10. Such progress was, however, not shared in sub-Saharan Africa and South Asia. On the contrary, malnutrition among children worsened between 1990 and 1995. This was also the case in the Near East and North Africa, but the levels and incidence were much lower. South Asia is the region with the highest incidence rate and where more than half of all the malnourished children of the developing world live. In sub-Saharan Africa no progress has been made since 1980, when the prevalence of underweight children was lower than in 1985. Any improvement continues to be elusive in the 1990s.

11. This pattern is supported by a more detailed analysis of the anthropometric surveys. There are 38 countries in which more than one nationwide survey has been conducted, the latest in the 1990s. Of these 38, the percentage of underweight children has risen in 9 countries, 6 of which are in Africa, 2 in Latin America and the Caribbean, and 1 in Asia. In another 9 countries, there have been no changes (rather evenly distributed among the regions). And in the remaining 20 countries the percentage of underweight children has declined.[7]

Table 4.2 The prevalence of underweight children

Region	*Percentage underweight*			*Number underweight (millions)*		
	1985	*1990*	*1995*	*1985*	*1990*	*1995*
All developing regions	33.8	30.4	30.9	165.7	160.2	167.3
Middle America and the Caribbean	14.0	12.7	12.2	2.5	2.4	2.5
South America	8.7	7.4	5.2	3.0	2.6	1.9
Sub-Saharan Africa	29.2	28.7	31.2	25.9	26.7	33.4
Near East and North Africa	13.9	10.9	11.4	4.3	3.7	4.0
South Asia	55.2	50.1	50.6	87.9	84.4	90.1
South-East Asia	36.0	33.8	32.0	20.2	19.6	19.1
China	21.5	17.5	15.6	21.8	20.7	16.3

Source: Administrative Committee on Coordination/Subcommittee on Nutrition, "Preliminary Results for the Third Report on the World Nutrition Situation" (7 February 1996).

Note: The sample includes 95 countries. Regional classifications are those of the Subcommittee. Near East and North Africa includes, inter alia, Cyprus, Iraq, and Turkey. South Asia includes, inter alia, the Islamic Republic of Iran. The data are estimates based on a statistical relation between the percentage of underweight children (which are obtained from surveys conducted in different years between 1970 and 1995) and a number of explanatory variables such as GDP per capita.

12. There is no clear consensus on why the incidence of malnutrition among children in South Asia is so much higher than in Africa or anywhere else for that matter. A number of factors, among them, poverty, inequality, food production and government intervention, would lead to the opposite expectation or, at least, to an expectation of equal incidence. Some of the difference can be attributed to the higher mortality rates among children in Africa. Mortality can be explained partly by malnutrition, but after a child dies, he or she can no longer be counted as malnourished.[8] Lower birth weights, higher incidence of diseases and lower levels of hygiene in South Asia are other likely factors. (Better access to health care might prevent these factors from translating into higher death rates.) Finally, feeding patterns, factors relating to breastfeeding and the introduction of other foods probably play a role as well.[9]

2. Micronutrient deficiencies

13. Even if the calorie content of food is sufficient, it may lack certain nutrients which are crucial for human health. In fact, micronutrient deficiencies are much more common than energy deficiencies. The three nutrients most often monitored are vitamin A, iodine and iron (see table 4.3). These nutrients can be added to food at little expense, a cost-effective method for preventing diseases. Vitamin A deficiency causes blindness and affects the development and function of several other body parts, particularly the immune system. In 1995 about 2.8 million children under the age of five suffered from vitamin A deficiency, showing signs of clinical xerophthalmia. An additional 251 million had insufficient vitamin A and had on average a 20 times greater risk of death or severe infection. Nevertheless, recent progress has been made in several countries in reducing vitamin A deficiencies, for example, by fortifying foods like sugar.

Table 4.3 Populations at risk of and affected by micronutrient deficiencies, most recent estimates (millions)

	Iodine deficient		Vitamin A deficient[a]		Iron deficient or anemic
Region	At risk	Affected (Goitre)	At risk	Affected (Xerphthalmia)	Affected
World	1,571	656	251	2.8	2,150
Americas	167	63	16	0.1	94
Africa	181	89	52	1.0	206
Europe	141	97	-	-	27
Eastern Mediterranean	173	93	16	0.1	616
South-East Asia	486	175	125	1.5	149
Western Pacific	423	139	42	0.1	1 058

Source: WHO, Nutrition: Highlights of Recent Activities in the Context of The World Declaration and Plan of Action for Nutrition, (Geneva, WHO, December 1995), p. 5.

Note: Regional classifications are those of WHO. Europe includes Turkey, Eastern Europe and the successor states of the Soviet Union. Eastern Mediterranean includes Western Asia, Djibouti, Egypt, Libya, Morocco, Somalia, Sudan and Tunisia, but excludes Algeria, Ethiopia and Eritrea. Western Pacific includes, inter alia, Australia, China, Japan, Malaysia, New Zealand, the Republic of Korea and Viet Nam.

[a] Estimates for vitamin A deficiency are for children under five years of age.

14. Iodine deficiency disorders are the most important causes of preventable brain damage among foetuses and children. In the early 1990s about 1.6 billion people lived in areas where the soils lacked sufficient iodine, and 656 million people suffered from goitre, almost half of them living in Asia. In the past few years significant progress has been made in salt iodization, which is the easiest solution. The number of countries with national salt iodization programmes increased from 46 in 1990 to 83 in 1995, out of 118 countries in which iodine deficiency is a significant health problem. The success of salt iodization makes it possible to reach the goal adopted by the World Summit for Children in 1990 and the International Conference on Nutrition in 1992 of virtually eliminating iodine deficiencies by 2000.

15. Iron deficiency and anaemia negatively affect children's physical and cognitive development and immune systems and cause fatigue and reduce work capacity in adults. Pregnant women are particularly prone to anaemia, which can retard foetal growth, increase the probability of low birth weights and increase rates of perinatal mortality and maternal death. More than 2 billion people were affected by iron deficiency or anaemia in the early 1990s. It is estimated that more than half of the pregnant women in developing countries suffer from anaemia.

3. Famines

16. As a final indicator of hunger, we analyse its most extreme form: starvation. A situation in which a sudden collapse of food consumption leads to widespread starvation and death is referred to as a famine. Fortunately, the number of famines have declined in recent decades. The only cases of widespread famine in recent years have been associated with civil wars, such as in Somalia in 1991-1992 and in the Sudan intermittently over the past 10 years. The growing infrequency of famines is mainly a result of successful and timely government intervention. This does not mean, however, that the danger of a famine does not loom in peaceful situations, only that it can be prevented. Intervention, however, critically depends on Governments' institutional and financial capacity, preparedness and commitment. In the case of civil wars these conditions are rarely fulfilled, and international action is often required. However, the modalities of such international intervention are not well articulated, which has led to considerable unnecessary suffering.[10]

B. Policy issues

17. If effective policy does not require an exact count of the number of malnourished people, it does need an accurate analysis of the causes. The determinants of malnutrition are often analysed in terms of food entitlements. Food entitlements are determined by the endowment of a person or family (land, labour, livestock) and the amount of food they can acquire through trade or production. Malnutrition results if food entitlements are inadequate because the piece of land the household cultivates is too small or yields too little, because the income earned is insufficient or because of unemployment. Prices are particularly important determinants of food entitlements. In Africa, for example, many smallholders in some areas, as many as 70 per cent, are net buyers

of food.[11] Starvation ensues if food entitlements fail when employment, wages, output prices or yields collapse, or food prices escalate. This situation can, for example, result from a natural disaster, which can destroy the livelihoods in a limited area, affecting little or not at all the country's total food supply if the area produces non-food products. However, because of the lack of purchasing power in the stricken area, the market will not deliver food, and intervention to restore food entitlements is called for.

18. Of course, the lack of food entitlements is closely related to poverty. Thus it is often asserted that the most important determinant of hunger and malnutrition is poverty. Policies to alleviate this root cause and the related cause, unemployment, are discussed elsewhere in this report. Here, some specific policy issues regarding nutrition are pertinent.

1. Production

19. Agricultural production is one of the most important determinants of food entitlements in developing countries. Increased agricultural production generally contributes to higher incomes and more employment, both major determinants of entitlements for farmers who sell their output and buy food, as well as for agricultural workers. Food production has three additional links with food entitlements.[12] Many people, primarily subsistence smallholders, produce the food they consume. Moreover, food production is a major determinant of food prices, which affects the ability of net buyers to purchase food. Finally, the ability to maintain a food stock to smooth out production shortfalls is influenced by food production.

20. Asia in particular, but Latin America as well, has seen large gains in food production since the mid-1960s as a result of the Green Revolution: the increased use of new high-yielding varieties in combination with irrigation and fertilizers. This has contributed greatly to increased energy supply (depicted in table 4.1). On the other hand, Africa is the only region in which food production per capita has been declining since the early 1970s. Africa has benefited little from the Green Revolution technology that changed agriculture in Asia. This failure can be attributed largely to the lack of seeds suitable to African conditions, weak local research capacity and a poorly developed support system to foster adoption, which would include extension services, credit and infrastructure. Thus research is needed to develop low-risk, low-cost seed varieties for rain-fed agriculture in Africa that do not need many external inputs, such as pesticides and fertilizer, and are resistant to drought and disease.[13]

21. Generally, the ability to increase production is limited, particularly for smallholders, by labour (seasonally), underdeveloped human resources and access to land, credit, transport, marketing, infrastructure and inputs such as seeds, fertilizer and extension services. A number of these constraints require policy interventions, in part because they involve public goods. Price incentives are also important, but often they are only necessary, not sufficient conditions, as the non-price constraints are generally the most crucial. Thus the aggregate supply response to changes in producer prices is typically low and only becomes

large in the long run (as many as 10 to 20 years) if complemented by investments to alleviate non-price constraints.[14]

2. Targeted intervention

22. The impact of policy measures aimed at increasing production will not be felt immediately. Moreover, these measures might fall short of providing food entitlements to the landless and urban poor, or even the smallholders. Additional measures are therefore needed to alleviate malnutrition. Indeed, Governments have used a number of targeted measures, ranging from food subsidies, to employment schemes, to enhanced food entitlements.[15]

23. As part of structural adjustment programmes implemented since the early 1980s, food subsidies explicitly through budget allocations and implicitly through overvalued exchange rates when food is imported - have been reduced in many developing countries. Untargeted food subsidies, which can account for a large share of government expenditures and often benefit the non-poor to a considerable extent, have in many cases been replaced by targeted interventions, such as selected subsidies, food rations, food stamps and food supplements. Targeting has been based on the selection of an "inferior" food (presumably consumed mostly by the poor), geographical area, income, employment status, season and attendance at health clinics. But, there are several problems regarding abuse and leakages, the information needed to design targeted programmes and the capacity to administer them. In the end the efficiency of different instruments must be balanced against their effectiveness in the prevailing political and economic situation.

24. Public employment programmes are a form of intervention that has gained popularity since the 1980s, partly because targeting these programmes is easier. They can deal simultaneously with a number of problems, such as food entitlements, famine prevention, poverty and weak infrastructure. In countries where poor infrastructure forms a major constraint to economic development, public employment programmes that hire workers to construct infrastructure, such as roads and irrigation systems, will have benefits far exceeding the nutritional effects on participants. These benefits, however, depend in part on the capacity to design and implement such programmes, and their integration into mainstream public planning. Moreover, advance preparation in case of disaster, such as a drought, can greatly improve the long-term benefits of the programmes. Finally, targeting the poor is crucial to their success. The poor can best be reached by focusing on the causes of poverty, such as a lack of infrastructure, concentrating on regions where poverty is highest, and relying on self-targeting by setting a low (but sufficient) wage rate (below the market rate).

3. Trade

25. In the developing countries fluctuations in domestic production are partly smoothed by international trade.[16] During the 1980s world stocks of cereals as a percentage of world consumption never fell below 17 per cent, the minimum requirement to ensure world food security, as calculated by FAO.[17] Since 1993, however, stocks of the main exporters (the United States and the European Union)

have been declining. Thus, in 1995 stocks declined to 14 per cent of world consumption, the lowest level in more than 20 years. In mid-1996 FAO predicted that this percentage would be about the same or slightly higher in 1997. As a result, cereal prices increased steeply between 1993 and 1996,[18] increasing the costs of food imports for several countries suffering from food production shortfalls, countries in North Africa in 1995, for example.

26. These global demand supply conditions in the early 1990s were partly weather-related but a number of structural phenomena were at work. Net imports of cereals by the developing countries have been increasing since the early 1970s, affecting all major developing regions, except South Asia. The rise was particularly large in the Near East and North Africa. Net imports are expected to increase in all developing regions until 2010. On the other hand, the economies in transition are expected to recover slowly from the decline in production in the early 1990s, become net-exporters of food in the near future, and progressively increase net exports thereafter.[19] The balance is expected to be covered as it has been in the past by net food exports from the developed countries, despite the reforms of the Common Agricultural Policy in the European Union and the implementation of the Agreement on Agriculture of the Uruguay Round of Multilateral Trade Agreements, which will reduce import protection and export subsidies of agriculture, and is likely to slow down the increase of net exports from the developed countries.

Notes

[1] The preparation of this section has benefited from the background papers for the World Food Summit.

[2] No correction is made for food losses and wastage at the retail and household level. The extent of overestimation is, however, likely to be relatively small in developing countries, although more significant in developed countries. See FAO, The Sixth World Food Survey (Rome, FAO, 1996), pp. 40, 129.

[3] This distribution is assumed to be log-normal with a mean equal to the average daily energy supply per capita and a coefficient of variation which is based directly or indirectly on household surveys. It is therefore assumed that distribution within the household is equal, which is a problematic assumption. See, for example, Kennedy, Eileen, and Howarth E. Bouis, Linkages Between Agriculture and Nutrition: Implications for Policy and Research (Washington, D.C., IFPRI, 1993), p. 4. The methodology is described in FAO, The Sixth World Food Survey (Rome, FAO, 1996).

[4] FAO introduces in The Sixth World Food Survey a new concept: food inadequacy. It states that this concept is similar to undernutrition because both refer to energy deficiencies relative to requirements. They are, however, not identical for three reasons. First, food inadequacy does not account for the increased energy requirements of adults when the person is infected. (This is taken into account for children.) Second, the body might not be able to absorb the food consumed in cases of severe infection. Third, some scholars have argued that there may be a range of variation in energy requirements to which the body can adapt. The methodology, however, partly accounts for this,

because the minimum energy requirements refer to the lower end of the range of inter-individual variations as a result of body weight and activity levels, and below which it is unlikely that individuals can adapt without any risk to health (despite the fact that these inter-individual variations are not directly related to the possibility of metabolic adaptation). The first two factors will lead to underestimation and the third to overestimation of the true prevalence of undernutrition. What is measured is therefore food inadequacy, which must be seen as an approximation of the true extent of undernutrition. Here, we refer to food inadequacy as undernutrition. See FAO, The Sixth World Food Survey, pp. 3-5, 44.

[5] However, anthropometric measures are inadequate if the child reduces his or her activity to leave enough energy to grow according to standards. Underestimation of the prevalence of undernutrition is, therefore, possible. See ibid., pp. 6, 64.

[6] The measurements of body sizes are compared to as recommended by WHO standard sizes of children in the United States who are assumed to be well-nourished. Studies have shown that growth of normal, healthy and adequately nourished children in other countries, independent of ethnicity, almost always approximate these reference standards. See FAO and WHO, Nutrition and Development: A Global Assessment, revised edition (Rome, FAO and WHO, 1992), p. 11.

[7] UNICEF, The Progress of Nations, 1996 (New York, UNICEF, 1996), p. 20. A survey for seven states in India (which accounts for a large share of South Asia) confirms the model estimates of table 4.2 that the percentage of underweight children is rising.

[8] When a malnourished child dies, both the numerator and the denominator of the percentage of children malnourished decline, but the numerator decreases more in percentage terms (unless all children are malnourished). Thus, the prevalence of malnutrition declines.

[9] For a discussion of these factors, see Ramalingaswami, Vulimiri, Urban Jonsson, and Jon Rohde, "The Asian enigma", The Progress of Nations, 1996 (New York, UNICEF, 1996), pp. 11-17.

[10] For an analysis of famines and its prevention see United Nations, World Economic Survey, 1993 (New York, United Nations publication, Sales No. E.93.II.C.1), chap. VI. The classic reference on the analysis of famines is Sen, Amartya, Poverty and Famines: An Essay on Entitlement and Deprivation (Oxford, Clarendon Press, 1981).

[11] Weber, Michael T., and others, "Informing food security decisions in Africa: Empirical analysis and policy dialogue", American Journal of Agricultural Economics, vol. 70, No. 5 (1988), pp. 1044-1052; Ali, Ridwan, and Barbara Pitkin, "Searching for household food security in Africa", Finance and Development, vol. 28, No. 4 (December 1991), pp. 3-6.

[12] See Sen, Amartya, Hunger and Entitlements (Helsinki, WIDER, 1987), pp. 10-11.

[13] The research for a green revolution in Africa could be partly financed with the potential revenues from the gene banks, which are now under the auspices of FAO, as described in a proposal in United Nations, World Economic and Social Survey, 1995 (New York, United Nations publication, Sales No. E.95.II.C.1), pp. 140-142.

[14] See World Bank, Adjustment in Africa: Reforms, results, and the road ahead (Oxford, Oxford University Press, 1994), p. 148.

[15] See, for example, FAO, The State of Food and Agriculture, 1995 (Rome, FAO, 1995), pp. 65-69; FAO, "Food Security and Nutrition", World Food Summit, Technical Paper, No. 9, provisional version (Rome, FAO, June 1996), pp. 24-26, 30; Michael Lipton and Martin Ravallion, "Poverty and Policy", in: Jere Behrman and T. N. Srinivasan (eds.), Handbook of Development Economics, vol. 3B (Amsterdam, North-Holland, 1995), pp. 2551-2657; Per Pinstrup-Andersen, "Targeted Nutrition Intervention", Food and Nutrition Bulletin, vol. 13, No. 3 (September 1991), pp. 161-169; and Joachim von Braun (ed.), Employment for Poverty Reduction and Food Security (Washington, D.C., IFPRI, 1995).

[16] In the developed countries this smoothing takes place particularly by reducing the amount of grains fed to animals in periods when grain prices are high. About 20 per cent of the world's cereal production is used for feeding livestock. In 1972-1974, for example, the drop in the United States feed consumption was as large as the global production shortfall.

[17] See United Nations, World Economic Survey, 1993 (New York, United Nations publication, Sales No. E.93.II.C.1), p. 145.

[18] For example, wheat and maize prices increased by more than 60 per cent.

[19] Alexandratos, Nikos, "The Outlook for World Food and Agriculture to Year 2010", in: Nurul Islam (ed.), Population and Food in the Early Twenty-First Century: Meeting Future Food Demand of an Increasing Population (Washington, D.C., IFPRI, 1995), pp. 25-48.

Chapter V

EDUCATION

1. Educational opportunities have rapidly expanded in the twentieth century. Since 1960, worldwide enrolment in primary and secondary schools has risen from an estimated 250 million children to more than 1 billion. The enrolment in higher education more than doubled in the past 20 years, from 28 million students in 1970 to more than 60 million today. The number of literate adults has almost tripled, from approximately 1 billion in 1960 to more than 2.7 billion.[1] Formal education has become a major tool for developing human capabilities, transmitting knowledge and cultural heritage, and improving the quality of life. But, both educational opportunities and knowledge remained unequally distributed within and among countries, contributing to persistent inequality in employment opportunities and incomes, and to social tension.

2. The 1990s have witnessed a renewed quest to broaden the scope of and to improve access to and the quality of basic education. Thus in 1990 at the World Conference on Education for All,[2] held in Jomtien, Thailand, 155 countries committed themselves to providing primary education for all children and to reduce adult illiteracy significantly by the end of the decade. Signatories of the World Declaration on Education for All and the Framework for Action have recognized the importance of providing skills, the critical foundation for lifelong learning. Basic learning needs, as defined by the Conference, include knowledge, skills, attitudes and values, which are viewed as key conditions for survival and determinants of the quality of life.

3. In keeping with these objectives, this chapter will briefly overview the current state of formal education, examining enrolment, quality of education and public expenditures in this sector. In keeping with the current focus on "basic learning needs", adult illiteracy will then be briefly examined. The chapter concludes with a short discussion of emerging policy issues.

A. Status of formal education

4. The progress made in implementing the goals of the Jomtien Conference was appraised in June 1996 at the mid-decade meeting of the International Consultative Forum on Education for All, held in Amman, Jordan. The report presented a mixed picture.

1. Enrolment

5. The aggregated data on gross enrolment show that almost all regions have managed to increase the combined enrolment ratio between 1990 and 1993 (see box 5.1 and table 5.1). East and South Asia have shown the most impressive growth, increasing their overall enrolment ratios by more than 3 percentage points. Other regions, with the exception of sub-Saharan Africa, have also performed well.

Table 5.1. Gross enrolment ratios by level of education and gender

Regions	*Years*	*All levels*			*First level*			*Second level*			*Third level*		
		Total	*Male*	*Female*	*Total*	*Male*	*Female*	*Total*	*Male*	*Female*	*Total*	*Male*	*Female*
Developing countries	1990	52.2	57.0	47.2	98.9	105.6	91.8	41.9	47.5	35.9	7.0	8.5	5.5
	1993	54.7	59.2	50.0	98.6	104.4	92.6	45.7	51.1	40.1	8.8	10.7	6.8
Sub-Saharan Africa	1990	39.8	44.0	35.5	72.6	79.2	66.0	21.8	25.0	18.6	3.0	4.1	1.9
	1993	40.4	44.5	36.3	72.8	79.2	66.3	23.4	26.4	20.5	3.4	4.7	2.2
Arab States	1990	58.3	65.3	51.0	89.1	98.5	79.3	53.7	60.8	46.3	12.5	15.5	9.3
	1993	59.2	65.6	52.5	90.6	99.2	81.6	54.6	60.7	48.3	13.1	16.7	9.5
Latin America and the Caribbean	1990	67.0	67.6	66.5	106.8	108.6	105.0	51.7	49.5	54.0	17.1	18.2	16.0
	1993	69.2	69.6	68.9	110.0	112.1	107.8	54.8	52.2	57.4	18.0	18.2	17.9
East Asia and Oceania	1990	54.3	57.2	51.2	118.1	121.8	114.2	46.0	50.3	41.5	4.8	5.6	3.9
	1993	57.6	60.1	55.0	113.1	115.3	110.8	51.5	55.1	47.7	7.2	8.5	5.8
South Asia	1990	47.6	55.7	38.8	88.7	100.4	76.3	39.4	48.5	29.5	6.8	9.2	4.1
	1993	50.9	58.6	42.5	92.7	102.8	81.9	43.7	52.8	34.0	8.2	11.5	4.7
Least developed countries	1990	34.0	39.0	28.8	67.4	75.3	59.4	17.4	21.8	12.9	2.6	3.8	1.4
	1993	35.1	40.3	29.8	70.1	78.3	61.8	17.8	22.3	13.2	3.3	4.8	1.7
Developed countries and economies in transition	1990	80.8	79.8	81.9	99.4	99.7	99.1	95.1	93.9	96.4	44.3	42.2	46.5
	1993	82.3	80.9	83.7	101.3	101.5	101.0	94.7	93.0	96.5	47.4	44.7	50.2

Source: UNESCO, Statistical Yearbook , (Paris, UNESCO, 1995).

Box 5.1

Calculating enrolment ratios

Gross enrolment ratios are obtained by dividing the number of students enrolled in school by the country's population of school-age children. Although there is no universal consensus, most countries consider primary-school age to be 6 to 11 years, secondary-school age to be 12 to 17 years. The third level enrolment ratio is the number of students enrolled in post-secondary schools and universities divided by the population aged 20 to 24 years. Gross enrolment ratios therefore include all students enrolled in a given school level regardless of their age. Net enrolment ratios, on the other hand, use only the relevant school-age group as the numerator. The UNESCO data used in this chapter were calculated according to the different national systems of education and schooling at the first and second level. At the third level figures for the population aged 20 to 24 were used throughout. Second level education includes general, teacher-training and vocational education. Third level education includes universities and other institutions of higher education.

(a) Primary education

6. The total number of primary schoolers has increased in most regions of the world, especially in the developing countries (see table 5.1). Total enrolment in primary education in developing countries grew from 495.5 million in 1990 to 544.6 million in 1995. The growth in enrolment has outpaced the growth of the population aged 6 to 11 years in all developing country regions with the exception of sub-Saharan Africa, where the total number of children out of school in 1995 was nearly 2 million higher than the 1990 level. As a group, developing countries still face the enormous task of integrating 109 million children to the school system, most of whom are girls without access to primary education. In fact, despite some improvement in net enrolment ratios, a considerable share of primary-school-age children in developing countries remain outside of the school system (table 5.2). The most disturbing situation in this respect is in sub-Saharan Africa, where almost 30 per cent of children who are primary-school-aged do not go to school.

7. The developed countries and the countries with economies in transition have traditionally enjoyed high enrolment ratios in primary education. This trend, however, was not sustained in some transition countries during the first half of the 1990s. Albania, Georgia and Ukraine are examples (see figure 5.1).

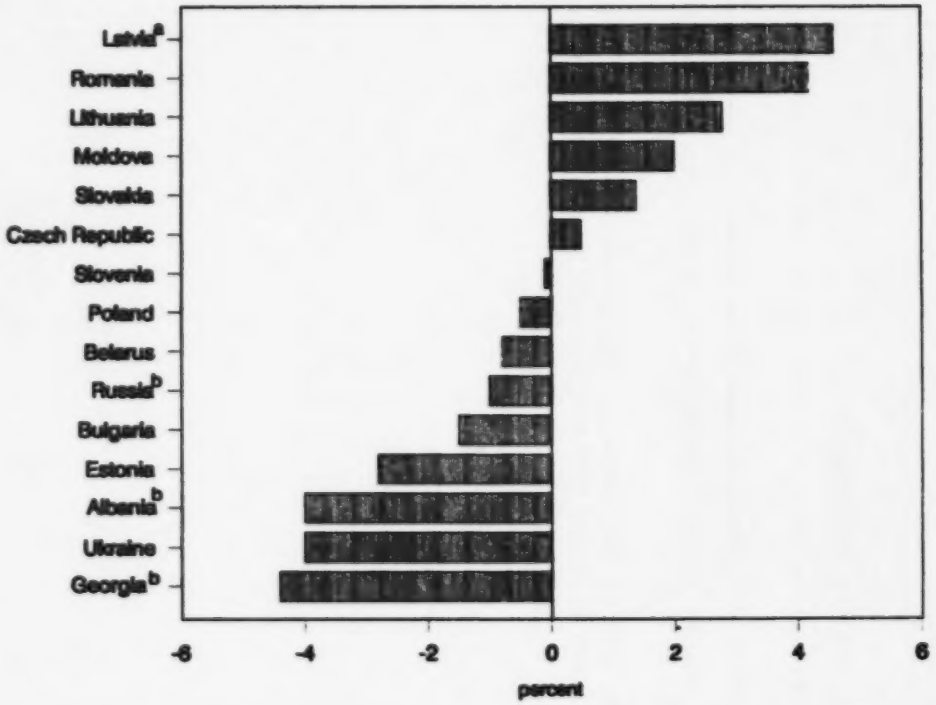
Table 5.2 Estimates of net enrolment in primary education (per cent)

Regions	1990	1995
East Asia and Oceania	85.0	90.7
South Asia	74.6	80.3
Latin America and the Caribbean	85.4	90.8
Sub-Saharan Africa	56.5	61.1
Arab States	74.9	79.8

Source: United Nations Educational, Scientific and Cultural Organization (UNESCO), 1996.

Note: Net school enrolment is the percentage of children of primary-school age (between 6 and 11 years who are currently enrolled in school).

Figure 5.1. Difference in primary education enrolment rates in select countries in transition, 1990 and 1994



Source: UNICEF, "Poverty, Children and Policy: Responses for a Brighter Future", Economies in Transition Studies, Regional Monitoring Report No. 3, (Florence, UNICEF, 1995), p. 147.

a. 1991
b. 1993

/...

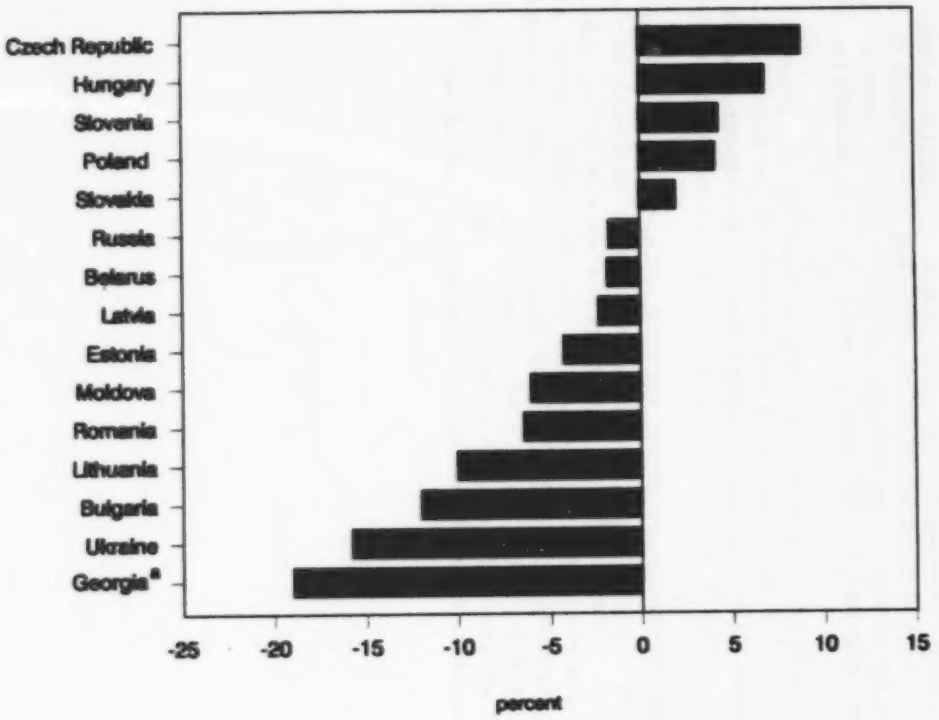
(b) Secondary education

8. Developing countries also increased enrolment in secondary education (see table 5.1). In South Asia, for example, the gross enrolment ratio grew from 39.4 per cent in 1990 to 43.7 per cent in 1993. In East Asia and Oceania it grew by more than 5 percentage points. In 1993 the highest secondary education enrolment ratio among the developing regions was in Latin America and the Caribbean, closely followed by the Arab States. Despite economic difficulties, sub-Saharan Africa has also managed to increase its secondary education enrolment rate by almost 2 percentage points. Still, none of the developing regions has yet reached the enrolment level of the industrialized countries.

9. In the countries in transition, the situation in secondary education was mixed. In 10 of 15 countries there was a decline in secondary education enrolment between 1990 and 1994 (figure 5.2). Enrolment has fallen most dramatically in Georgia and Ukraine, by 19 and 16 percentage points.

10. The developed countries experienced a slight decline in the gross enrolment ratio in secondary education. But they made some progress with respect to net enrolment ratios. The number of young people remaining in the educational system beyond the minimum school-leaving age has grown, especially in Europe.[3] In the United Kingdom, for example, the share of 16-year-old males attending school on a full-time basis grew from 64 per cent in 1991-1992 to 71 per cent in 1993-1994, and of that of females from 72 per cent to 77 per cent. The increase in the participation rate of all young people aged 16-24 was 5 percentage points.[4]

Figure 5.2. Difference in secondary education enrolment rates in select countries in transition, 1990 and 1994



Source: UNICEF, "Poverty, Children and Policy: Responses for a Brighter Future", Economies in Transition Studies, Regional Monitoring Report No. 3, (Florence, UNICEF, 1995) p. 147.

a. 1993

(c) Tertiary education

11. With the exception of Asia, enrolment ratios in tertiary education did not change significantly during 1990-1993 (see again table 5.1). On the other hand, female enrolment in higher education grew noticeably in Latin America and the Caribbean, East Asia and Oceania. But the increase in female participation in higher education was most noticeable in the developed countries, 3.7 percentage points between 1990 and 1993.

12. In most countries female students concentrated in education and the humanities. For instance, in 1992 the percentage of female students in these fields were, respectively, 53 and 44 per cent in India, 73 and 74 per cent in Japan, and 57 and 53 per cent in Malaysia.[5]

13. In many transition countries there has been a noticeable shift in the distribution of students from fields such as engineering and medical sciences to economics, finance and law. In the Russian Federation and Ukraine, for instance, higher technological and medical schools have suffered a drastic reduction in the number of applicants in the past four years. Many prominent schools which have trained students in fundamental sciences are now experiencing a deep crisis. In Lithuania, for example, the percentage of graduates who acquired engineering degrees declined from 28.5 per cent in 1990 to about 22 per cent in 1994.[6]

(d) Duration of compulsory education

14. Since 1990, the duration of compulsory education has changed little, except in Jordan and Sri Lanka. The gap in the duration of compulsory schooling between the developing and the developed countries remains significant (table 5.3). In most developing countries education is compulsory for between four and eight years, while in the developed countries, it is compulsory for at least eight years. Only a few developing countries (Bahrain, Gabon, Malaysia, Namibia, Peru, South Africa, Sri Lanka, Venezuela, for example) have been able to close this gap.

Table 5.3 Duration of compulsory education

Years of compulsory education								
4	5	6	7	8	9	10	11	12
Sao Tome *and Principe*	Bangladesh	Afghanistan	Argentina	Albania	Algeria	Andorra	Antigua and Barbuda	American Samoa
	Colombia	Benin	British Virgin Islands	Angola	Austria	Bahamas	Australia	Anguilla
	Egypt	Burkina Faso	Eritrea	Bolivia	China	Belize	Azerbaijan	Bahrain
	Iran, Islamic Rep. of	Burundi	Lesotho	Brazil	Comoros	Canada	Belarus	Barbados
	Lao People's Dem. Rep.	Cambodia	Mauritius	Bulgaria	Costa Rica	Cayman Islands	Grenada	Belgium
	Macau	Cape Verde	Mozambique	Chad	Cyprus	Congo	Guam	Bermuda
	Madagascar	Central African Republic	Puerto Rico	Chile	Czech Rep.	Dominica	Israel	Brunei Darussalam
	Myanmar	Côte d'Ivoire	Rwanda	Croatia	Denmark	France	Kazakstan	French Polynesia
	Nepal	Cuba	Swaziland	Dominican Republic	El Salvador	French Guiana	Malaysia	Germany
	Turkey	Djibouti	Tanzania, United Rep. of	Equatorial Guinea	Estonia	Gabon	Moldova	Gibraltar
	Viet Nam	Ecuador	Trinidad and Tobago	Fed. Rep. of Yugoslavia	Finland	Guadeloupe	Montserrat	Saint Kitts and Nevis
		Ethiopia	Turks and Caicos Islands	Iceland	Ghana	Guyana	Netherlands	
		Former Yemen Arab Rep.	Zambia	India	Greece	Hungary	New Zealand	
		Guatemala		Italy	Hong Kong	Jordan	Peru	
		Guinea		Kenya	Ireland	Korea, Dem. People's Rep. of	Sri Lanka	
		Guinea-Bissau		Kuwait	Japan	Malta	Suriname	
		Haiti		Liechtenstein	Kiribati	Martinique	United Kingdom	
		Honduras		Macedonia	Korea, Rep. of	Monaco		
		Indonesia		Malawi	Latvia	Nauru		
		Iraq		Mongolia	Liberia	New Caledonia		
		Jamaica		Pacific Islands	Libyan Arab Jamahiriya	Niue		
		Mexico		Poland	Lithuania	South Africa		
		Morocco		Romania	Luxembourg	Spain		
		Nicaragua		San Marino	Mali	St. Lucia		
		Nigeria		Slovenia	Norway	St. Pierre and Miquelon		
		Panama		Somalia	Portugal	United States		
		Paraguay		Tonga	Russian Fed.	Venezuela		

Years of compulsory education								
4	5	6	7	8	9	10	11	12
		Philippines		Ukraine	Seychelles			
		Senegal		Yemen	Slovakia			
		Sudan		Zimbabwe	Sweden			
		Syrian Arab Republic			Switzerland			
		Thailand			Tajikistan			
		Togo			Tunisia			
		United Arab Emirates			Tuvalu			
		Uruguay						
		Vanuatu						
		Zaire						

Source: UNESCO, Statistical Yearbook, 1995 (Paris, UNESCO, 1995), table 3.1.

(e) Social and gender differences

15. The dynamics and composition of enrolment highlight several problems that must be addressed. One of the most serious tasks that developing countries face is improving gender equality in access to education. As table 5.1 shows, female enrolment ratios are usually lower than male enrolment ratios. This phenomenon, however, varies in magnitude across regions and countries. While female and male enrolment ratios are roughly equal in Latin America and the Caribbean, female enrolment ratios are persistently lower in the other developing regions. Some progress, however, has been observed in the Arab States and in South Asia, particularly in primary and secondary education. On the other hand, the gender gap in tertiary education increased in these two regions between 1990 and 1993.

16. In some developed and developing countries additional efforts are needed to eradicate significant urban-rural, ethnic and class differentials in school enrolment. Children of poor families, especially those in rural areas, and children of minorities tend to have lower enrolment rates and to drop out of school more frequently than those from wealthy families or from the dominant majority. In many low-income countries the widespread use of child labour (in both rural and urban areas) very often interferes with children's attendance at school (see chap. IV). According to ILO estimates, the world's number of working children of primary-school age was 128 million worldwide in 1995. About 50 per cent of secondary-school-age children were engaged in some form of economic activity.[7] And drop-out rates in such countries are extremely high. For instance, the percentage of first-graders from the 1991 cohort reaching fifth grade was less than 25 per cent in Ethiopia, 28 per cent in Madagascar, 45 per cent in Haiti and 47 per cent in Nepal.[8]

17. In most countries, school enrolment and drop-out rates are much worse in rural areas than in urban areas. According to some estimates the coverage of secondary education in rural areas in Chile was 49 per cent in 1993 compared with 85 per cent in urban areas. In Brazil, for example, the enrolment in secondary education for children aged 12 was 91 per cent in urban areas and 75 per cent in rural areas in 1990, and for children aged 15, 73 per cent and 45 per cent, respectively.[9]

18. In almost all multi-ethnic countries the drop-out rates among some ethnic minorities is higher than that of dominant groups or the majority. For example, in the United States the number of Hispanic and Black high school drop-outs was, respectively, 12.7 percentage points and 3 percentage points higher than the national average in 1993.[10] Similar trends have been observed in the countries with significant indigenous populations - Latin American countries, the Russian Federation, Australia and New Zealand. In Mexico, for example, the average drop-out rate for primary school in the areas heavily populated by indigenous peoples was twice the average rate in areas where non-indigenous people prevail.[11]

19. Evidence shows that in many countries children from the low-income strata lag behind in educational achievement. A recent study on seven Latin American countries indicated that young people from households falling into the two bottom quartiles of the income distribution had completed four years less of formal education than those from households falling into the top two quartiles.[12]

Group-targeted efforts are needed to correct such imbalances, and to ensure access to education for all.

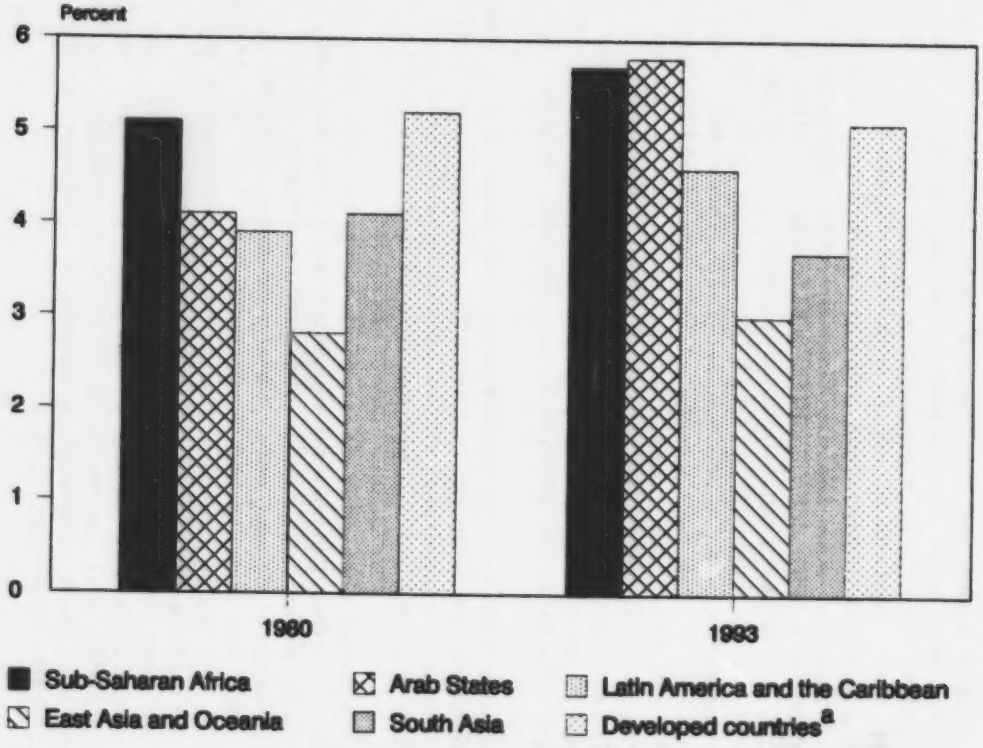
2. Public expenditures on education

20. Despite strongly expressed commitments to basic education, many developing countries have been unable to make access to education universal. Developing countries have increased public expenditures on education as a share of GNP since 1980, with the exception of South Asia (see figure 5.3). On a per capita basis East Asia and Latin America and the Caribbean raised their public expenditures on education more rapidly than the other developing regions (see figure 5.4). East Asia more than doubled public expenditures on education per inhabitant, while Latin American countries raised it by 30 per cent between 1980 and 1992. In the sub-Saharan African and South Asian countries, however, per capita public expenditures on education declined since 1980. But a word of caution is necessary.[13] The data presented here are based on nominal values and, consequently, do not take into consideration the effect of price inflation on education spending. Thus, once inflation is taken into account, the increase in expenditures on education, in real terms, would probably be less spectacular in East Asia and Latin America, and the decrease more dramatic in sub-Saharan Africa and South Asia than the figures presented here suggest.

21. The gap between the developing and developed countries in per capita public expenditures on education widened in 1980-1993. During that period the developing countries' average per capita public expenditures on education declined from 6.4 per cent to 4.0 per cent of that of the developed countries.[14]

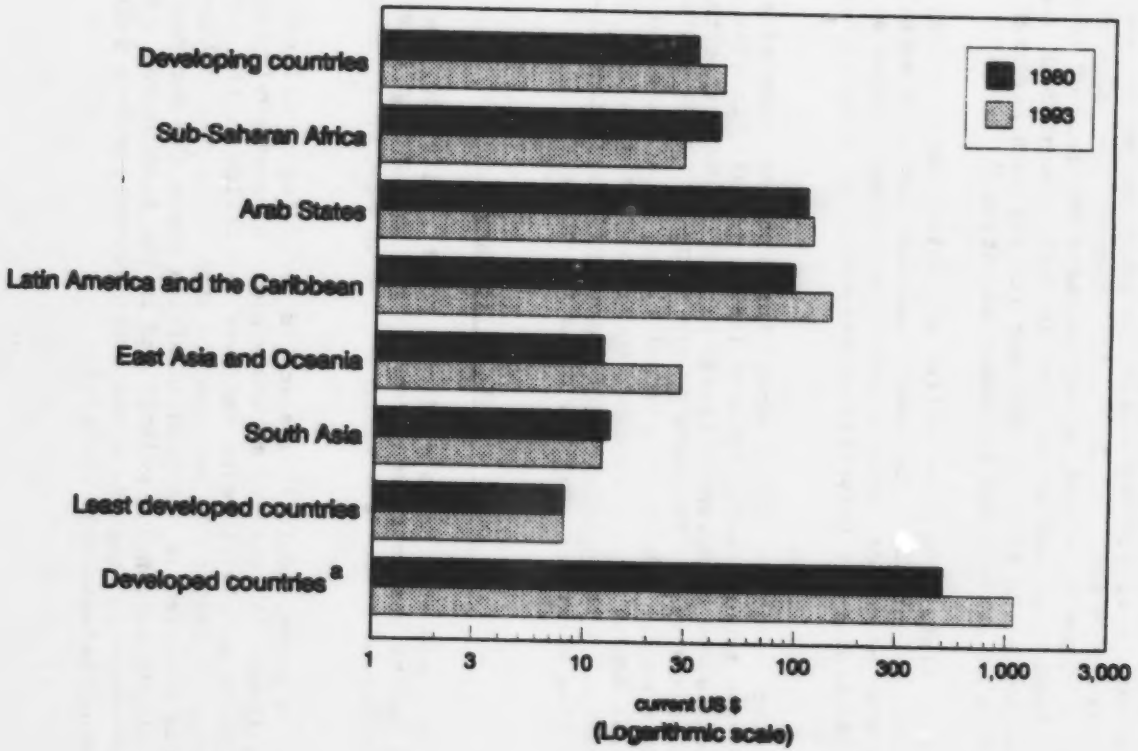
22. It should be noted that many developing countries may have difficulty in further increasing public funding to education as their national incomes remain relatively low. In several countries the need to undergo fiscal adjustment because of unsustainable fiscal deficits and mounting payment obligations on their external debt has constrained Governments' ability to increase the education budget. Attempts to solve the resource shortage by shifting costs to families and communities have also run into difficulties. The extremely low per capita incomes in some countries have limited the ability of communities and households to contribute more to the education of their children than they have been doing. The additional burden on low-income households may have a negative effect on school enrolment, especially enrolment of girls, as the demand for primary education is price-sensitive.

Figure 5.3. Public expenditures on education as a percentage of GNP, 1980 and 1993
(based on current market prices)



Source: UNESCO, Statistical Yearbook 1995, (Paris, UNESCO, 1995).
a. Includes the economies in transition.

Figure 5.4. Public expenditures on education per inhabitant, 1980 and 1993



Source: UNESCO, Statistical Yearbook 1995, (Paris, UNESCO, 1995).

a. Includes the economies in transition.

23. Notwithstanding the above, many developing countries have been trying to extend public primary education without raising its costs by employing different approaches. For example, Colombia, Senegal and Zimbabwe have begun to hire teachers who have less formal education, but more in-service training, hence, reducing salary costs. Other countries (Zambia and Bangladesh, for example) raised pupil-teacher ratios and introduced double shifts, thus noticeably reducing capital costs.[15] Many developing countries have reviewed the distribution structure of funding within the education sector and made changes favouring primary education. In Chile, for example, the share of secondary and higher education in public education expenditures was reduced from 18 and 33 per cent in 1980 to 13 and 21 per cent in 1993. Bangladesh diminished the share of higher education (from 13 per cent in 1980 to 8 per cent in 1992), but increased funding to primary and secondary education.[16]

24. Countries in transition have shifted education costs, especially those of higher education, to parents. This shift has been achieved mainly by partially privatizing public education, both secondary and higher. Such an approach, however, may jeopardize the universal accessibility of education and equality of opportunity.

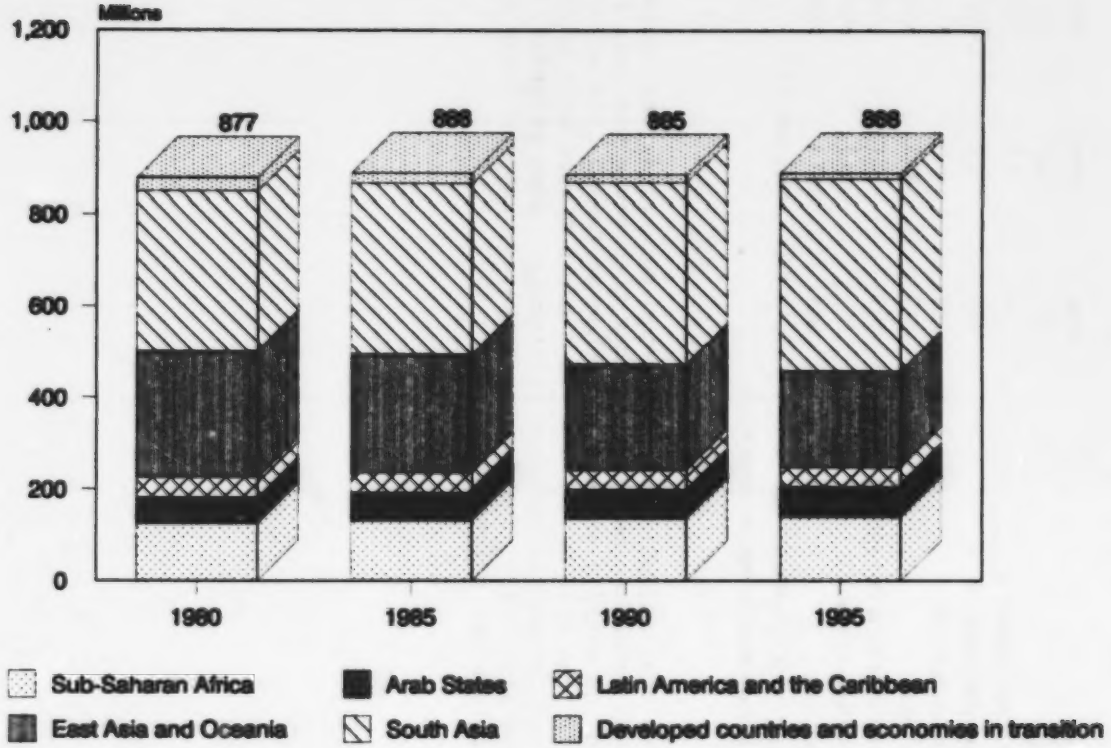
25. In developed countries public expenditures on education as a percentage of GNP did not change significantly between 1985 and 1993. In view of current budget constraints and demographic trends, it is unlikely that this group of countries will dramatically increase public funding. There has been, however, growing pressure on the public educational system to accommodate the specific needs of diverse social groups in some countries. This would require additional funding or changes in the allocation of resources among expenditures (teachers' salaries, teaching materials, capital costs and others).

B. Adult illiteracy

26. Despite enormous efforts to eradicate adult illiteracy, the absolute number of illiterate adults has increased from 877 million in 1980 to 885 million in 1995, the majority of which (872 million) live in developing countries (see figure 5.5).

27. In relative terms, adult illiteracy is declining in all regions (see table 5.4), although it remained markedly high in some developing regions. The illiteracy rate of people 15 years and over has fallen in the developing world from 42 per cent in 1980 to 30 per cent in 1995. The most noticeable improvement has occurred in sub-Saharan Africa where the decrease in illiteracy was the largest (17 percentage points) and in the Arab States (16 percentage points) since 1980. In South Asia the adult illiteracy rate fell by 11 percentage points between 1980 and 1995.

Figure 5.5. Illiterate adults, 1980 - 1995



Source: UNESCO, Statistical Yearbook 1995, (Paris, UNESCO, 1995).

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Table 5.4. Adult illiteracy rate, by region, 1980, 1990 and 1995 (percent)

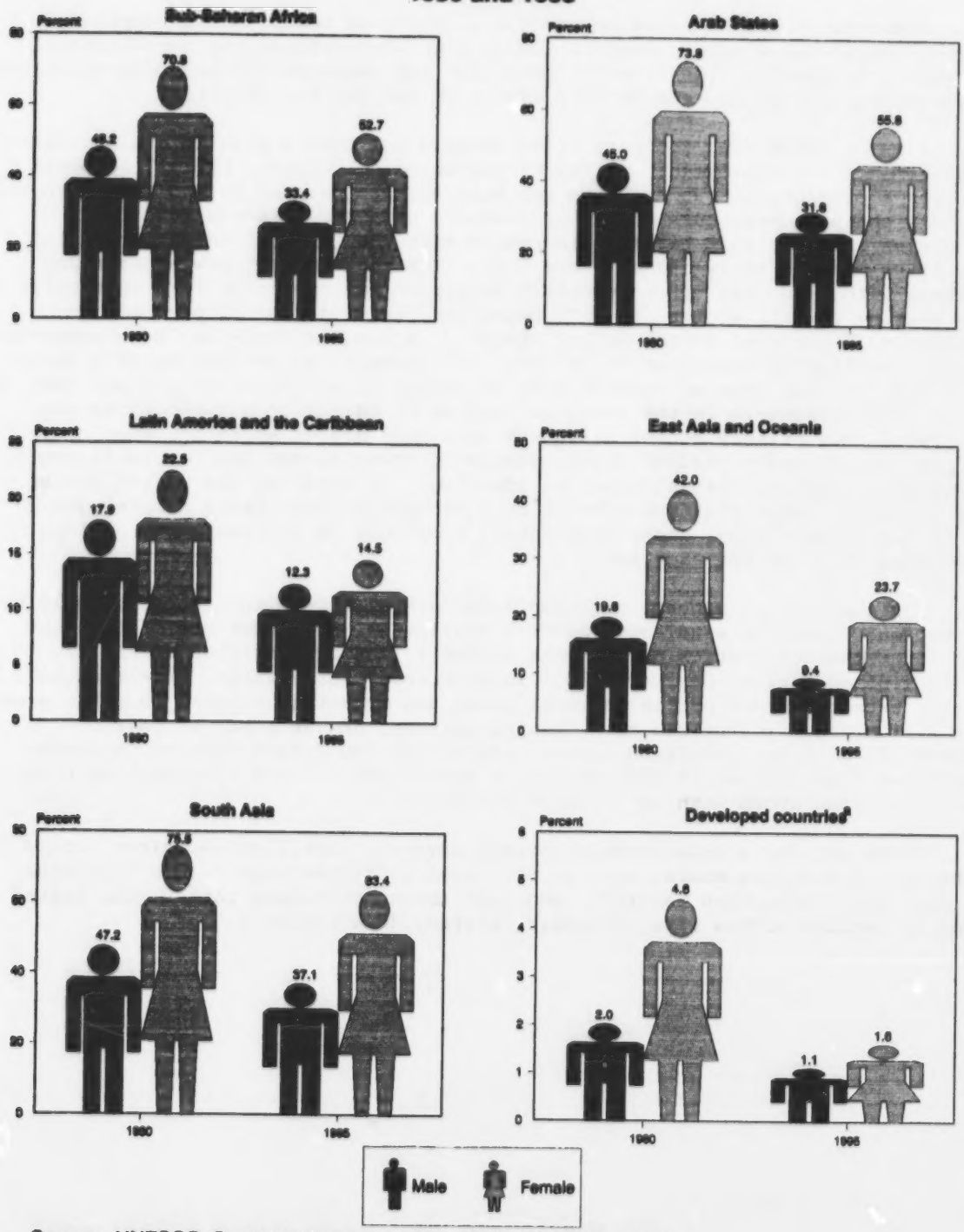
Region	1980	1990	1995
World	30.5	24.7	22.6
Developed countries a	3.4	1.8	1.3
Developing countries	42.0	32.8	29.6
Sub-Saharn Africa	59.8	48.7	43.2
Arab States	59.2	48.3	43.4
Latin America and the Caribbean	20.3	15.1	13.4
East Asia and Oceania	30.7	19.7	16.4
South Asia	60.9	53.4	49.8

Source: UNESCO,Statistical Yearbook 1995, (Paris, UNESCO, 1995), table 2.2.

a Includes the economics in transition.

28. In all regions, including the developed countries, the incidence of illiteracy among women has been much higher than among men (see figure 5.6). South Asia had the world's highest incidence of female illiteracy in 1995 with 64 per cent. In the Arab States and sub-Saharan Africa more than half of the female adult population has remained illiterate. Some progress, however, has been registered since 1980; the female illiteracy rate in these regions has fallen by 18 percentage points.

Figure 5.6. Adult illiteracy rates, by gender 1980 and 1995



Source: UNESCO, Statistical Yearbook 1995, (Paris, UNESCO, 1995).

a. Includes the economies in transition.

C. Impact of education

29. There is no single measurement of the impact of education on people's lives. Empirical studies, however, found that there are strong correlations between, for example, the level of education and earnings, between education and unemployment incidence, and between education and quality of life.[17]

30. A major trend over the past three decades has been a rise in qualification requirements for employment, driven by technological change. In all economic sectors a premium was put on those who were able to respond to and cope with the rapidly changing structure of labour demand. Data for selected developed countries indicate that earnings increased with the level of education during the 1980s and the early 1990s (table 5.5). The incidence of low wages among workers with less than upper secondary education was typically more than twice the average for all workers in OECD countries, varying from 10 per cent in France to 32 per cent in the United States.[18] A similar trend has been observed in many developing countries.[19] In Peru, for example, an estimation of a basic earnings function gave an overall rate of return to education of 5.7 per cent in 1993. The difference in the rates of returns to education between those who completed only primary school and those with some higher education was 58 per cent.[20] Additionally, the incidence of unemployment has become strongly correlated with the initial level of education. A study of the United States, for instance, found that the average rate of unemployment among people aged 27 since age 18 was higher among high-school drop-outs (6.2) than among college graduates (3.7) of the same age.[21]

31. The qualitative aspects of human life have also been influenced heavily by education. Numerous studies on poverty provide evidence that one of the most important characteristics of the poor is their lack of education or the low quality of education they received. In Nicaragua, for example, more than half of the extremely poor people in rural areas and more than a third in urban areas are illiterate. In Tunisia more than 90 per cent of the heads of poor households have not completed primary education. In Poland poverty incidence was three times higher in the population group with 8 years of schooling than in the population group with 14 years of schooling.[22]

32. There is also a relationship between poverty, fertility behaviour, child mortality and female education. In most poor countries high female illiteracy is correlated with high fertility and high infant mortality rates. The latter tend to decline with a rise in female literacy (see figure 5.7).

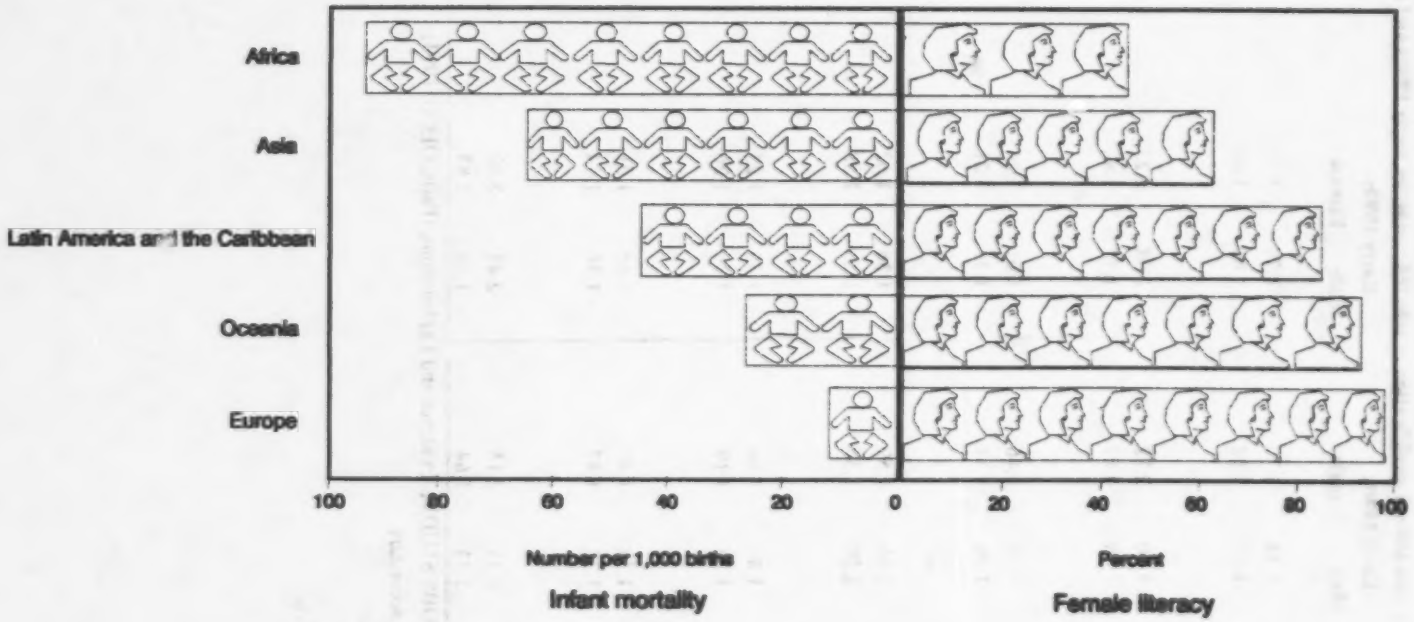
Table 5.5 Earning ratios by educational qualification in selected countries, early 1980s and early 1990s

Country	Early 1980s		Early 1990s	
	Male	Female	Male	Female
Australia				
Level E/level A	1.74	1.70	1.79	1.71
Level E/level B	1.65	1.52	1.62	1.61
Canada a				
Level E/level A	1.90	2.22	2.08	2.23
Level E/level B	1.70	1.82	1.71	1.80
Denmark				
Level E/level A	1.58	1.46	1.61	1.36
Level E/level B	1.39	1.33	1.31	1.21
Japan a				
Level E/level A	1.36	1.59	1.36	1.62
Level E/level B	1.28	1.36	1.28	1.38
Norway				
Level E/level A	1.43	1.26	1.35	1.25
Level E/level B	1.35	1.19	1.26	1.26
Sweden				
Level E/level A	1.37	1.49	1.55	1.51
Level E/level B	1.22	1.47	1.36	1.54
United States a				
Level E/level A	2.33	2.15	2.47	2.32
Level E/level B	1.73	1.64	1.89	1.83

Source: OECD, The OECD JOBS STUDY, Evidence and Explanations, (Paris, OECD, 1994).

Notes: Level A - Incomplete secondary
Level B - High School
Level E- University
a. Middle / late 1980s

Figure 5.7. Female literacy and infant mortality, 1990 - 1995



Source: UNESCO, Statistical Yearbook 1995, (Paris, UNESCO, 1995), and UN, World Population Monitoring 1996 (New York, UN, forthcoming).

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D. Supply and demand conditions

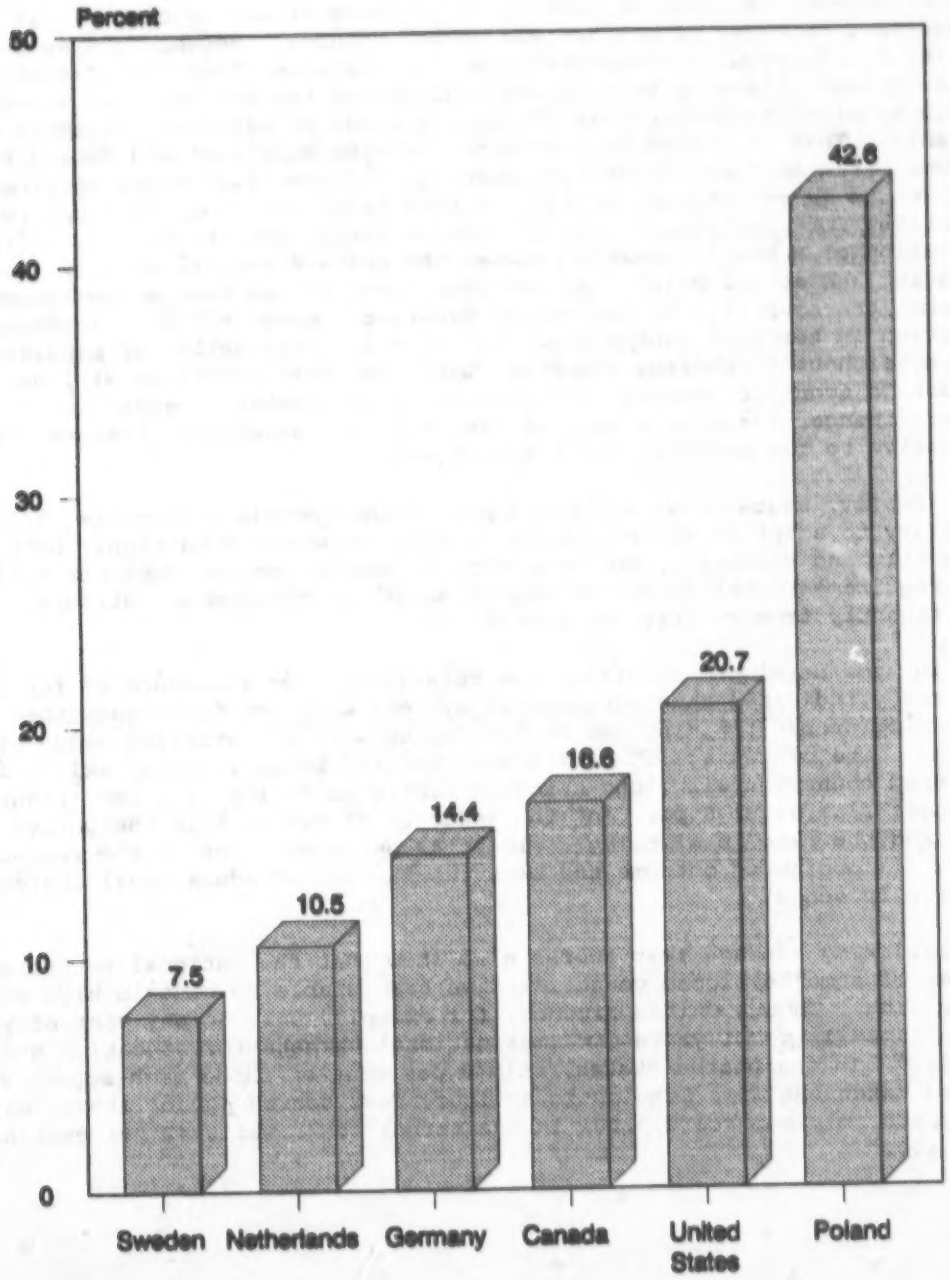
33. The quality of a given educational system can be assessed in terms of current demand, national or global, or in terms of future demand. It can also be assessed in terms of private and social returns. Recent debates on the quality of education in Latin America, for instance, gave considerable attention to the growing mismatch between the quality and the structure of knowledge and skills acquired through education and the needs of national economies competing globally. That is, there is a mismatch between supply of and demand for skills. In some Latin American countries, earnings differentials stemming from differences in educational attainment have been narrowing, thus undermining the incentives for acquiring knowledge through formal education. Such a trend is an indication of another mismatch between the private expectations of returns to education and actual gains. At the same time, it has been acknowledged that although the countries of the region benefited enormously from advancements in education in terms of labour productivity and stabilization of population growth, without furthering progress, Latin American countries will not be able to sustain economic recovery and increase their competitiveness in the global market. Hence, there is a need to make current educational systems more responsive to the needs of the national economy.

34. Ideally, educational systems should enable people to acquire skills necessary to adapt to rapidly changing socio-economic conditions, both nationally and globally. But education in most countries does not fully meet such requirements, although the magnitude of the problem may differ significantly from country to country.

35. In some developed countries the relatively high incidence of functional illiteracy indicates that educational systems have not fully succeeded in delivering proper training and in keeping up with the evolving needs of the economy. The percentage of adults with limited basic literacy skills in some developed countries with long-standing public education is large (figure 5.8). It ranges from about 8 per cent in Sweden to 21 per cent in the United States. In Poland the rate is alarming: almost 43 per cent. One of the reasons for such a disappointing outcome has been the failure of educational systems to keep children in school.

36. Declining average test scores also show that the national educational systems of some developed countries have been unable to sustain high standards of training. In the United Kingdom, for example, only 54 per cent of young people (aged 19 to 21 years old) met national targets for education and training in 1991.[23] In the United States, only 8 per cent of those high-school students who had taken the 1994 Scholastic Aptitude Test scored 600 or above (maximum score, 800; minimum score, 200) in the verbal test, while 42 per cent scored below 400.[24]

Figure 5.8. Adults with only basic literacy skills in six countries, 1995



Source: OECD data, 1995.

37. In most developing countries the low quality of formal education has been a chronic problem. Several reasons have been offered: the relatively short duration of compulsory education, a shortage of schoolteachers, limited school facilities and overcrowding. In sub-Saharan Africa and South Asia, for example, the average teacher-pupil ratio was less than half that in developed countries in the early 1990s (see table 5.6).

38. The low qualification of teachers is also a problem contributing to high repetition and drop-out rates in some developing countries. This situation is particularly severe in some sub-Saharan African countries (figure 5.9). Additionally, many teachers in developing countries must contend with the near absence of basic school supplies. There is a chronic shortage of textbooks, pens and paper.

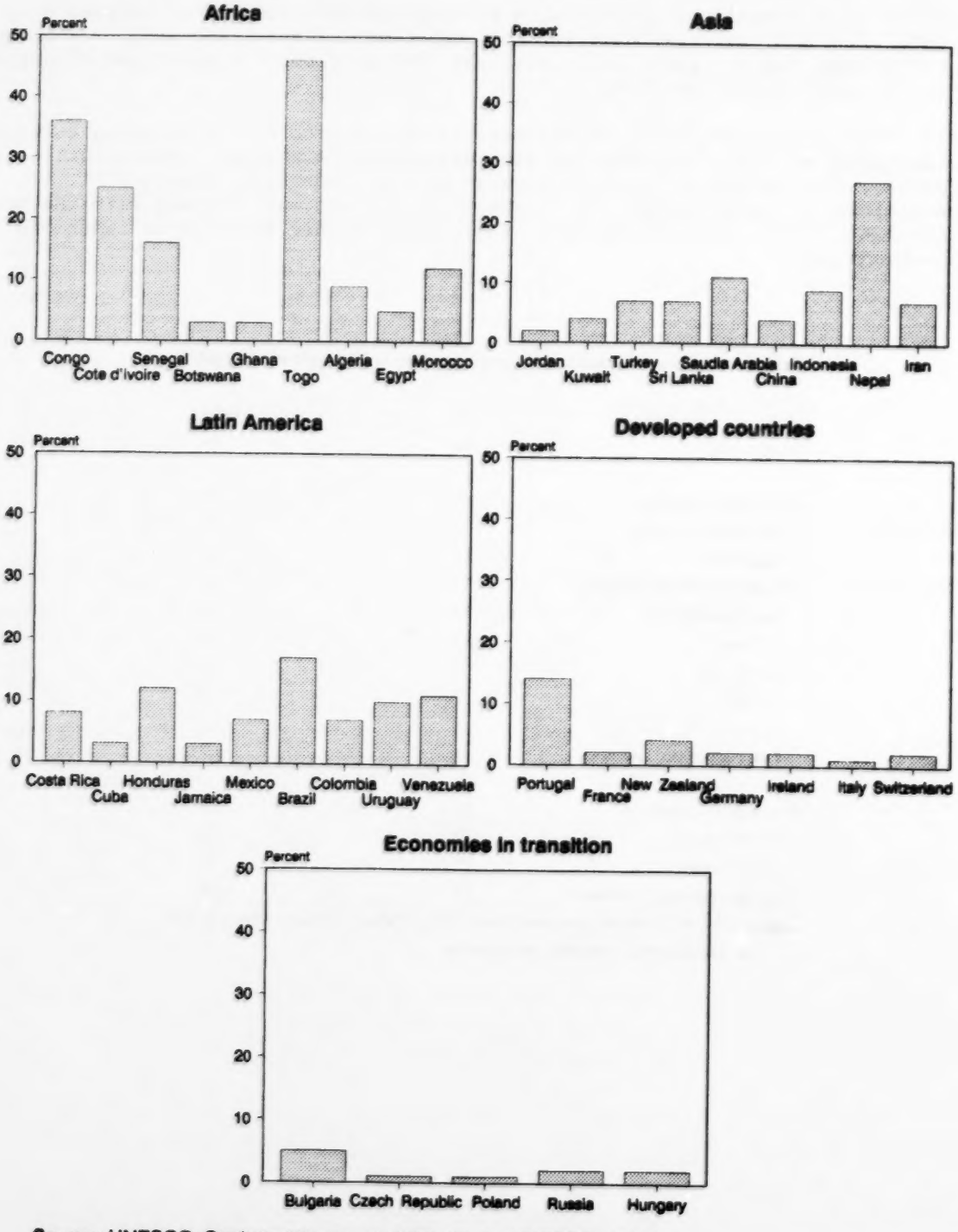
Table 5.6 Number of teachers (all levels) per thousand people aged 15-64

	1985	1992
World Total	16	16
Developing countries	13	13
Sub-Saharan Africa	9	10
Arab States	17	19
Latin America/Caribbean	21	22
East Asia/Oceania	14	14
China	13	13
South Asia	9	9
India	9	9
Least developed countries	7	7
Developed countries a	23	24
North America	23	24
Asia/Oceania	23	25
Europe/Russian Federation	23	24

Source: UNESCO, World education report 1995, (Paris, UNESCO, 1995), p. 108.

a Includes the economies in transition.

Figure 5.9. Percentage of repeaters at the first level of education early 1990s



Source: UNESCO, Statistical Yearbook 1995, (Paris, UNESCO, 1995).

39. Teachers' purchasing power has dramatically deteriorated in most developing countries and countries in transition. Cuts in government expenditures and inflation have meant lower real wages for teachers in many African and Latin American countries. In Argentina, the Central African Republic, Kenya and Madagascar, teachers' purchasing power fell by 30 to 50 per cent between the early 1980s and 1993. We have seen similar trends in the transition economies. In the Russian Federation, for example, the ratio of a teacher's average monthly salary to the national monthly wage fell from 80 per cent in 1980 to 69 per cent in 1994.[25]

40. In the developed countries there has been growing pressure on teachers to improve the quality of education resulting in additional workloads and changes in methodology. At the same time, only marginal resources, at best, have been provided to upgrade teachers' skills. Worse, in searching for a solution to the problem of public budget deficits, attempts to reduce teachers' salaries have intensified, hence, undermining their economic incentives.

E. Current policies and policy issues

41. Education is fundamental to enhancing the quality of human life and ensuring social and economic progress. But because of large differences in levels of education and local demand for skills across regions, policy priorities also vary significantly.

42. In most developing countries of Africa and Asia, for example, the current emphasis is on extending school coverage to achieve universal primary education. Integrating girls into school is another priority. Progress achieved by some Asian and African countries in expanding primary-school coverage was a result of joint efforts by Governments, donors and non-governmental organizations. Such increases were attained either by expanding the education budget or by changing the priorities, management and organization of education. Some countries, for example, combined targeting children in the poorest regions, and girls, with increased funding for primary education and the reorganization of education management. In Pakistan and Malawi, for instance, local communities helped to construct new schools and provide furniture, facilities and land for temporary schools. Parents helped to monitor school attendance and students' behavioural problems. In many instances, cultural attitudes were taken into consideration by identifying an appropriate package of "girl-friendly" measures, single-sex classes, appropriate learning materials, female teachers, among others.[26] The partnership between the Government, the community and the family appears to be an effective approach to solving problems of primary education.

43. The eradication of adult illiteracy by 2000 remains on the agenda of many developing countries. Approaches to this problem vary from country to country. The Government of India, for example, pioneered the National Open School, which offers basic, secondary and vocational education and life enrichment programmes to all those aged 14 and older. These schools have attracted members of marginalized groups, who constitute more than 50 per cent of their current enrolment. Some countries have begun to use a wide range of technologies for remedying both adult illiteracy and poor basic education of young adults. Thailand, for example, set up an educational radio network in the 1980s. India

is using satellite transmission to reach mass audiences and remote villages. China has been using national distance education programmes, while Côte d'Ivoire has introduced educational television.[27] Despite the advantages of these new approaches, an evaluation of some national experiences showed that they cannot replace formal education, although they can play an important complementary role.

44. The quality of education is of great concern to the developing and developed countries. There is a widespread perception that too many children learn too little in school. As expected, approaches to this problem differ from country to country, depending on the perceived causes and the availability of resources. In the developing countries emphasis is placed on the quality of teachers' training and the services they render. In the developed countries the use of new technologies in teaching is expected to yield better results. In the countries in transition curriculum reform, decentralization and privatization are viewed as means to make educational institutions more responsive to the demand for skills.

45. Many countries target the efficiency of education as their top priority. The problem of drop-outs is very severe in most developing and in some developed countries. It is believed that in addition to better education quality, school retention programmes may help to reduce drop-out rates. In Latin America, for instance, the ratio of children reaching third and fourth grades rose because of such programmes. Overall, it appears that an output-oriented approach to educational issues will dominate the educational policies of most countries in future years.

46. There has also been growing concern with the link between education and employment. The problem extends beyond schools and young people. For example, the first International Adult Literacy Survey found that nearly one fifth of the population aged 16 to 65 in seven advanced economies could perform only at the most basic levels of literacy and numeracy. Such people clearly have a higher risk of unemployment, especially in an environment where skills must be upgraded constantly to cope with volatile labour market conditions. But encouraging investment in human capital, especially in situations where returns to some types of education may be low, is not an easy task. Moreover, there is currently a great deal of debate about the proper role of government in the social sectors and the trend is to avoid government involvement whenever possible. Education is unique, however, in that it is both a consumption and an investment good. Ensuring the proper quantity and distribution of educational resources may be a task with which the market needs considerable assistance from government.

47. In the developed economies, at least, an additional policy concern is that higher education has been devalued somewhat. The recent cycle of enterprise "downsizing" at least in the United States has often resulted in the firing of college-educated, white-collar workers, while skilled machinists and other such blue-collar labourers remained in demand. But whether this trend marks the end of ever-increasing wage premiums for those with higher education in the long run remains to be seen.[28]

Notes

[1] Delors, Jacques, Learning: The Treasure Within, report to UNESCO of the International Commission on Education for the Twenty-first Century (Paris, UNESCO, 1996), pp. 117, 130.

[2] Final Report of the World Conference on Education for All: Meeting Basic Learning Needs, Jomtien, Thailand, 5-9 March 1990, Inter-Agency Commission (UNDP, UNESCO, UNICEF, World Bank) for the World Conference on Education for All, New York, 1990.

[3] The extent of compulsory education varies from country to country. In most European countries 8 to 10 years of education are required (see table 5.3).

[4] Central Statistical Office, Social Trends. 1996 Edition (London, HMSO, 1996), p. 75, table 3.19.

[5] UNESCO, World Educational Report 1995 (Oxford, UNESCO Publishing, 1995), pp. 134-135, table 10.

[6] Statistical Yearbook of Lithuania, 1994-95 (Vilnius: Methodical Publishing Centre, 1995), p. 25.

[7] International Labour Office, Child Labour (Geneva, ILO, 1995).

[8] UNESCO, World Educational Report 1995 (Oxford, UNESCO Publishing, 1995), p. 37, figure 2.8.

[9] Economic Commission for Latin America and the Caribbean (ECLAC), The Strategic Role of Secondary Education in Achieving Well-Being and Social Equity (LC/G.1919, 2 May 1996), p. 44, table A.7, annex.

[10] United States Department of Commerce, Economics and Statistics Administration, Statistical Abstract of the United States, 1995. The National Data Book (Washington, D.C.: Bureau of the Census, 1995), p. 174, table 268.

[11] George Psacharopoulos and Henry Anthony Patrinos, eds., Indigenous People and Poverty in Latin America. An Empirical Analysis (Washington, D.C., World Bank, 1994), p. 142, table 7.7.

[12] ECLAC, The Strategic Role of Secondary Education in Achieving Well-Being and Social Equity (LC/G.1919, 2 May 1996), p. 37.

[13] The information presented in figure 5.4 refers to expenditures on education of the central Government only. It therefore, excludes local government expenditures, which can be quite substantial in some countries.

[14] UNESCO, Statistical Yearbook 1995 (Paris, UNESCO, 1995).

[15] Mehrotra, Santosh, Ashok Nigam, Aung Tun Thet, Public and Private Costs of Primary Education. Evidence from Selected Countries in Asia and Africa.

UNICEF Staff Working Papers No. 15 (Sales No. E.96.XX.USA.4, New York, 1996), p. 6.

[16] UNESCO, Statistical Yearbook 1995 (Paris, UNESCO, 1995), pp. 4-50, table 4.3.

[17] OECD, The OECD Jobs Study. Evidence and Explanations, Part II. The Adjustment Potential of the Labour Market (Paris, OECD, 1994); Gaffikin, Frank and Mike Morrissey, The New Unemployed. Joblessness in the Market Economy, (London, Zed Books, 1992); World Bank, Poverty Reduction and the World Bank. Progress and Challenges in the 1990s (Washington, D.C., World Bank, 1996); Jayarajah, Carl, William Branson and Binayak Sen, Social Dimensions of Adjustment. World Bank Experience, 1980-93, A World Bank Operations Evaluations Study (Washington, D.C., World Bank, 1996).

[18] OECD, Employment Outlook, July 1996 (Paris, OECD, 1996), p. 71.

[19] See, for example: Psacharopoulos, George, and Henry Anthony Patrinos, eds., Indigenous People and Poverty in Latin America. An Empirical Analysis (Washington, D.C., World Bank, 1994); Psacharopoulos, George and Zafiris Tzannatos, Women's Employment and Pay in Latin America (Washington, D.C., World Bank, 1992); Simai, Mihaly and others, eds., Global Employment. An International Investigation into the Future of Work (London, Zed Books Ltd., 1995).

[20] George Psacharopoulos and Henry Anthony Patrinos, eds., Indigenous People and Poverty in Latin America. An Empirical Analysis (Washington, D.C., World Bank, 1994), pp. 189 and 193.

[21] United States Department of Labor, Monthly Labor Review, Volume 116, No. 4 (April 1993).

[22] World Bank, Poverty Reduction and the World Bank. Progress and Challenges in the 1990s (Washington, D.C., World Bank, 1996), pp. 7, 111, 116.

[23] As a result of educational reform, the situation improved significantly in the United Kingdom by 1994, and the percentage of young people meeting national targets increased to 64.1. Central Statistical Office, Regional Trends 30. 1995 Edition, A Publication of the Government Statistical Service (London: HMSO, 1995), table 4.16.

[24] Scores are per thousand participants. United States Department of Commerce, Economics and Statistics Administration, Statistical Abstract of the United States, 1995. The National Data Book (Washington, D.C., Bureau of the Census, 1995), p. 175, table 271.

[25] GOSKOMSTAT, Rossiisky Statistichesky Ezhegodnik 1995 (Moscow, 1995), p. 81.

[26] World Bank, Levelling the Playing Field. Giving Girls an Equal Chance for Basic Education - Three Countries' Efforts (Washington, D.C., World Bank, 1996), pp. 2 and 4.

[27] Delors, Jacques, Learning: The Treasure Within, report to UNESCO of the International Commission on Education for the Twenty-first Century (Paris, UNESCO, 1996), pp. 170-171.

[28] See, for example, Krugman, Paul, "White Collars Turn Blue", The New York Times Magazine (29 September 1996).